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NEWS 2 Apr 08 "Ask CAS" for self-help around the clock

NEWS 3 Apr 09 BEILSTEIN: Reload and Implementation of a New Subject Area

NEWS 4 Apr 09 ZDB will be removed from STN

NEWS 5 Apr 19 US Patent Applications available in IFICDB, IFIPAT, and IFIUDB

NEWS 6 Apr 22 Records from IP.com available in CAPLUS, HCAPLUS, and ZCAPLUS

NEWS 7 Apr 22 BIOSIS Gene Names now available in TOXCENTER

NEWS 8 Apr 22 Federal Research in Progress (FEDRIP) now available

NEWS 9 Jun 03 New e-mail delivery for search results now available

NEWS 10 Jun 10 MEDLINE Reload

NEWS 11 Jun 10 PCTFULL has been reloaded

NEWS 12 Jul 02 FOREGE no longer contains STANDARDS file segment

NEWS 13 Jul 22 USAN to be reloaded July 28, 2002; saved answer sets no longer valid

NEWS 14 Jul 29 Enhanced polymer searching in REGISTRY

NEWS 15 Jul 30 NETFIRST to be removed from STN

NEWS 16 Aug 08 CANCERLIT reload

NEWS 17 Aug 08 PHARMAMarketLetter(PHARMAML) - new on STN

NEWS 18 Aug 08 NTIS has been reloaded and enhanced

NEWS 19 Aug 19 Aquatic Toxicity Information Retrieval (AQUIRE) now available on STN

NEWS 20 Aug 19 IFIPAT, IFICDB, and IFIUDB have been reloaded

NEWS 21 Aug 19 The MEDLINE file segment of TOXCENTER has been reloaded

NEWS 22 Aug 26 Sequence searching in REGISTRY enhanced

NEWS 23 Sep 03 JAPIO has been reloaded and enhanced

NEWS 24 Sep 16 Experimental properties added to the REGISTRY file

NEWS 25 Sep 16 Indexing added to some pre-1967 records in CA/CAPLUS

NEWS 26 Sep 16 CA Section Thesaurus available in CAPLUS and CA

NEWS EXPRESS February 1 CURRENT WINDOWS VERSION IS V6.0d,

CURRENT MACINTOSH VERSION IS V6.0a(ENG) AND V6.0Ja(JP),

AND CURRENT DISCOVER FILE IS DATED 05 FEBRUARY 2002

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=> s growth factor or growth stim?

L1 445749 GROWTH FACTOR OR GROWTH STIM?

=> s (intestine or stomach)(s)epithel?

L2 27684 (INTESTINE OR STOMACH)(S) EPITHEL?

=> s l2 and l1

L3 1393 L2 AND L1

=> s treat?

L4 6121815 TREAT?

=> s l3 and l4

L5 282 L3 AND L4

=> dup rem l5

PROCESSING COMPLETED FOR L5

L6 207 DUP REM L5 (75 DUPLICATES REMOVED)

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SEARCH ENDED BY USER

=> s l6 and review

L7 6 L6 AND REVIEW

=> d ti so l7

L7 ANSWER 1 OF 6 MEDLINE

T1 Pharmacological effects of epidermal growth factor

(EGF) with focus on the urinary and gastrointestinal tracts.

SO APMIS. SUPPLEMENTUM, (1999) 93 1-42. Ref: 311

Journal code: 8812090. ISSN: 0903-465X.

=> d ti so l-6

L7 ANSWER 1 OF 6 MEDLINE

T1 Pharmacological effects of epidermal growth factor

(EGF) with focus on the urinary and gastrointestinal tracts.

SO APMIS. SUPPLEMENTUM, (1999) 93 1-42. Ref: 311

Journal code: 8812090. ISSN: 0903-465X.

L7 ANSWER 2 OF 6 MEDLINE

T1 Breast milk and the prevention of neonatal and preterm gastrointestinal

disease states: a new perspective.

SO CHUNG-HUA MIN KUO HSIAO ERH KO I HSUEH HUI TSA  
CHIH, (1997 Sep-Oct) 38 (5)  
321-31. Ref: 51  
Journal code: 16210470R. ISSN: 0001-6578.

L7 ANSWER 3 OF 6 MEDLINE  
T1 Cellular and molecular basis of intestinal and pancreatic adaptation.  
SO SCANDINAVIAN JOURNAL OF GASTROENTEROLOGY.  
SUPPLEMENT, (1992) 193 64-7.  
Ref: 31  
Journal code: 0437034. ISSN: 0085-5928.

L7 ANSWER 4 OF 6 CAPLUS COPYRIGHT 2002 ACS  
T1 Trefoil peptides  
SO Gut (1999), 44(6), 890-895  
CODEN: GUTTAK; ISSN: 0017-5749

L7 ANSWER 5 OF 6 CAPLUS COPYRIGHT 2002 ACS  
T1 Cellular and molecular mechanisms of ulcer healing  
SO Drugs of Today (1997), 33(10), 697-706  
CODEN: MDACAP; ISSN: 0025-7656

L7 ANSWER 6 OF 6 CAPLUS COPYRIGHT 2002 ACS  
T1 Molecular aspects of restitution: functions of trefoil peptides  
SO Yale Journal of Biology and Medicine (1996), 69(2), 137-146  
CODEN: YJBMAU; ISSN: 0044-0086

=> d ibib ab 1,4,5,6

L7 ANSWER 1 OF 6 MEDLINE  
ACCESSION NUMBER: 1999353047 MEDLINE  
DOCUMENT NUMBER: 99353047 PubMed ID: 10424202  
TITLE: Pharmacological effects of epidermal **growth factor** (EGF) with focus on the urinary and gastrointestinal tracts.  
AUTHOR: Vinter-Jensen L  
CORPORATE SOURCE: Faculty of Health Sciences, University of Aarhus, Denmark.  
SOURCE: APMIS. SUPPLEMENTUM, (1999) 93 1-42. Ref: 311

Journal code: 8812090. ISSN: 0903-465X.  
PUB. COUNTRY: Denmark  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
General Review; (REVIEW)  
(REVIEW, ACADEMIC)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
ENTRY MONTH: 199908  
ENTRY DATE: Entered STN: 19990820  
Last Updated on STN: 20000303  
Entered Medline: 19990810

AB Epidermal **growth factor** (EGF) belongs to a family of **growth factor** ligands and receptors. At present, five ligands have been recognized which as EGF exert their effects via binding to the same EGF receptor. The family has three other receptors erbB2, erbB3, and erbB4, which have their own ligands (the heregulins). The system is ubiquitously distributed in mammals, and has important roles in normal development, and in regenerative and neoplastic growth. Mouse and human EGF were discovered in 1962 and 1975 by Stanley Cohen and Harry Gregory, respectively, due to EGFs potent systemic effects. EGF accelerated eyelid opening in newborn mice and inhibited gastric acid secretion in humans. Already in the late thirties, a factor in human urine was recognized which prevented or accelerated healing of experimental damage in the gastrointestinal tract. This factor appeared to be EGF. Around 1980, an effect of commercial interest was described-EGF caused

shedding of the fleece in sheep. In line with the original observations, several studies have examined effects of EGF on developmental processes.

Amongst other effects, EGF accelerates lung and intestinal maturation before birth and in newborn mammals. Due to the possible use of EGF in the wool industry, it was mandatory to know more about EGF. Amongst other effects in mature sheep and other animals are haemodynamic changes, changes in electrolyte homeostasis, and endocrinological changes. In relation to experimental damage, the therapeutic potential of systemic EGF

has been demonstrated in all parts of the gastrointestinal tract, in the kidneys, in the liver and in the trachea. EGF has even been tried in humans in gastric ulcer healing and in necrotising enterocolitis.

Studies on prolonged **treatment** with EGF have first recently appeared. We described effects of 4-5 weeks of **treatment** in Goettingen minipigs and in rats, and two other groups described effects in monkeys and in rats. In summary, species differences were observed. The species of higher order were most sensitive to **treatment** with EGF. EGF did not consistently change the total body weight despite EGF consistently

reduced circulating levels of insulin-like **growth factor** I (IGF-I) in Goettingen minipigs as well as in rats. Low circulating levels of IGF-I are usually associated with retarded growth. This **review** mostly focuses on the organs which appeared to be most sensitive to EGF, the urinary and gastrointestinal tracts including the liver and the pancreas. The histopathological changes consisted mainly of **epithelial** proliferations in the gastrointestinal, urinary and respiratory tracts. These findings match the knowledge obtained from animals overexpressing the EGF agonist, transforming **growth factor** alpha (TGF alpha), and the mice with a knock out of the gene encoding for the EGF receptor. EGF receptor hyperstimulation (TGF

alpha overexpression) in the context of the whole animal leads to **epithelial** proliferations whereas hypostimulation (EGF receptor knock out) leads to **epithelial** immaturities. In the minipigs, the **epithelia** of the oesophagus, ducts of the pancreas, and the urothelium were hyperplastic, the latter two **epithelia** with accumulation of glycoconjugates. In the rats, the **epithelial** hyperplasias in these tissues and in the small and large **intestines** were without glycoconjugate accumulations. In rats, the mucosal proliferations in the **intestines** resulted in increased mucosal surface area. Mesenchymal growth effects were also noted.

In the ureters of the minipigs, smooth muscle cell hyperplasia and hypertrophy were found. The heart of the minipigs was also enlarged, an interesting finding regarding interactions between the different parts of the EGF system, as knock out mice of the receptors erbB2 and erbB4 die due to maldevelopments in the heart. Measurements in blood and serum also revealed consistent changes. (ABSTRACT TRUNCATED)

L7 ANSWER 4 OF 6 CAPLUS COPYRIGHT 2002 ACS  
ACCESSION NUMBER: 1999:558504 CAPLUS  
DOCUMENT NUMBER: 132:48275  
TITLE: Trefoil peptides  
AUTHOR(S): Wong, W. M.; Poulsom, R.; Wright, N. A.  
CORPORATE SOURCE: Department of Histopathology, Imperial College of Science, Technology and Medicine, Hammersmith Campus, London, W12 0NN, UK  
SOURCE: Gut (1999), 44(6), 890-895  
CODEN: GUTTAK; ISSN: 0017-5749  
PUBLISHER: BMJ Publishing Group

DOCUMENT TYPE: Journal; General Review

LANGUAGE: English

AB A **review** with 88 refs. The trefoil factor family (TFF) is a relatively new family of peptides which bear the three-loop trefoil domain. They are mainly synthesized and secreted by mucin secreting epithelial cells lining the gastrointestinal tract and have a close assocn. with mucins. They are highly conserved during evolution and are heat, acid and enzyme resistant. Their abundant expression in distinct patterns in the normal physiol. state and ectopic expression in various ulcerative conditions suggests an important role in mucosal defense and repair. Expression of TFF peptides in neoplasia has stimulated interest in deducing the biol. role of these peptides in tumor progression. The underlying mol. mechanism of TFF peptide action is still unknown, but their phys. properties, and the biol. activities of these peptides as motogens may prove to be useful as therapeutic agents in ulcerative conditions, including inflammatory bowel disease where present **treatment** is far from ideal.

REFERENCE COUNT: 88 THERE ARE 88 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 5 OF 6 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1998:131769 CAPLUS

DOCUMENT NUMBER: 128:178743

TITLE: Cellular and molecular mechanisms of ulcer healing

AUTHOR(S): Tarnawski, A.

CORPORATE SOURCE: Gastroenterology Section, DVA Medical Center, Long

Beach, CA, USA

SOURCE: Drugs of Today (1997), 33(10), 697-706

CODEN: MDACAP; ISSN: 0025-7656

PUBLISHER: J. R. Prous, S.A.

DOCUMENT TYPE: Journal; General Review

LANGUAGE: English

AB A **review**, with 70 refs. Ulcer healing, i.e., the reconstruction of the mucosal architecture, is an active process of filling the mucosal defect with proliferating and migrating epithelial and connective

tissue cells. Mucosa adjacent to the ulcer crater forms a "healing" zone. The gastric glands in this zone dilate and the epithelial cells lining these glands dedifferentiate and proliferate. The latter is the result of local activation of genes encoding for epidermal **growth factor** (EGF), its receptors and likely other **growth factors**, such as hepatocyte **growth factor** (HGF), trefoil **growth peptides** (TGP), transforming **growth factor**-beta (TGF-beta) and basic fibroblast **growth factor** (bFGF). At the ulcer margin, proliferating and dividing epithelial

cells migrate onto the granulation tissue to cover (reepithelialize) the ulcer and also invade granulation tissue to reconstruct glandular structures within the ulcer scar. Reepithelialization and reconstruction of epithelial structures is under the control of EGF and other **growth factors** and cytokines produced locally by regenerating cells. Granulation tissue grows extensively under the control of bFGF,

VEGF

(vascular endothelial **growth factor**) and possibly other **growth factors** through angiogenic process, supplying microvessels for restoration of the lamina propria and synthesis

of extracellular matrix within the mucosal scar. The final outcome of the

healing process reflects a dynamic interaction between the epithelial cells from the healing zone at the ulcer margin and the connective

tissue cells (including endothelial cells of microvessels) originating from the

granulation tissue. Depending on these interactions, mucosal scar

can be

of good quality (restoration close to normal) or poor quality. Recent exptl. studies have demonstrated that the antacid Talcid and sucralfate

exert trophic effect on gastric mucosa and compared with omeprazole, improve the quality of restored mucosal structures within the ulcer scar.

More recent studies have demonstrated that **treatment** with Talcid or sucralfate activate genes for EGF, bFGF and their receptors, significantly increasing the expression of EGF and its receptor in ulcerated gastric mucosa, compared to placebo and omeprazole.

L7 ANSWER 6 OF 6 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1997:293443 CAPLUS

DOCUMENT NUMBER: 126:341731

TITLE: Molecular aspects of restitution: functions of trefoil peptides

AUTHOR(S): Poulsom, Richard; Begos, Denis E.; Modlin, Irvin M.

CORPORATE SOURCE: Histopathology Unit, Imperial Cancer Research Fund,

London, WC2A 3PX, UK

SOURCE: Yale Journal of Biology and Medicine (1996), 69(2),

137-146

CODEN: YJBMAU; ISSN: 0044-0086

PUBLISHER: Yale Journal of Biology and Medicine

DOCUMENT TYPE: Journal; General Review

LANGUAGE: English

AB A **review** with 60 refs. Healing of mucosal damage takes place in two phases: restitution of mucosal integrity and remodeling towards recreating the original glandular arrangements. These processes can be

obsd. in several exptl. rodent models: e.g., cryoprobe or NSAID-generated ulcers in the gastric or duodenal mucosa and following surgical resection

of the small or large bowel. In some studies, it has been possible to detect changes in the expression of peptides, either in the reparative epithelium or adjacent to the damage, that may contribute to the healing

processes. Trefoil peptides are expressed constitutively by epithelial cells in specific regions of the gastrointestinal tract, in assocn. with mucins. Several studies have shown that trefoil peptide expression is enhanced at sites of damage in man and rat, and exptl. evidence supports

their active participation in the healing process. Recombinant trefoil peptides are able to enhance the rate of epithelial cell migration in vitro and are able to protect against indomethacin-induced damage in vivo,

yet they do not depend upon TGF-beta for enhancing cell migration and do

not appear to affect acid secretion. The mode of action of trefoil peptides appears to be receptor-mediated but is not simple. There is good

evidence that there are interactions between members of the trefoil family

and the EGF family that are beneficial for mucosal defense and repair.

This raises the possibility that combining trefoil peptides with other **growth factors** or small mol. may be advantageous for **treatment** of ulceration.

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=> d his

(FILE 'HOME' ENTERED AT 11:52:34 ON 17 SEP 2002)

FILE 'MEDLINE, BIOSIS, CAPLUS' ENTERED AT 11:53:34 ON 17 SEP 2002

L1 445749 S GROWTH FACTOR OR GROWTH STIM?

L2 27684 S (INTESTINE OR STOMACH)(S)EPITHEL?

L3 1393 S L2 AND L1  
L4 6121815 S TREAT?  
L5 282 S L3 AND L4  
L6 207 DUP REM L5 (75 DUPLICATES REMOVED)  
L7 6 S L6 AND REVIEW

=> s ulcer? or crohn?  
L8 256835 ULCER? OR CROHN?

=> s l6 and l8  
L9 31 L6 AND L8

=> d ti so 1-31

L9 ANSWER 1 OF 31 MEDLINE  
TI The effects of keratinocyte **growth factor** in preclinical models of mucositis.  
SO CELL PROLIFERATION, (2002 Aug) 35 Suppl 1 78-85. Ref: 17  
Journal code: 9105195. ISSN: 0960-7722.

L9 ANSWER 2 OF 31 MEDLINE  
TI Pharmacological effects of epidermal **growth factor** (EGF) with focus on the urinary and gastrointestinal tracts.  
SO APMIS. SUPPLEMENTUM, (1999) 93 1-42. Ref: 311  
Journal code: 8812090. ISSN: 0903-465X.

L9 ANSWER 3 OF 31 MEDLINE  
TI Increased hepatocyte **growth factor** content in rat stomach during omeprazole **treatment**.  
SO DIGESTION, (1998) 59 (2) 102-9.  
Journal code: 0150472. ISSN: 0012-2823.

L9 ANSWER 4 OF 31 MEDLINE  
TI Beneficial effects of growth hormone combined with parenteral nutrition in the management of inflammatory bowel disease: an experimental study.  
SO SURGERY, (1997 Feb) 121 (2) 212-8.  
Journal code: 0417347. ISSN: 0039-6060.

L9 ANSWER 5 OF 31 MEDLINE  
TI Non-steroidal anti-inflammatory drug gastropathy: causes and **treatment**.  
SO SCANDINAVIAN JOURNAL OF GASTROENTEROLOGY. SUPPLEMENT, (1996) 220 124-7.  
Ref: 34  
Journal code: 0437034. ISSN: 0085-5928.

L9 ANSWER 6 OF 31 MEDLINE  
TI Effects of pancreatic spasmodic Polypeptide (PSP) on epithelial cell function.  
SO EUROPEAN JOURNAL OF BIOCHEMISTRY, (1996 Jan 15) 235 (1-2) 64-72.  
Journal code: 0107600. ISSN: 0014-2956.

L9 ANSWER 7 OF 31 MEDLINE  
TI Immunohistochemical localization of basic fibroblast **growth factor** in the healing stage of mouse gastric **ulcer**.  
SO HISTOCHEMISTRY, (1993 Dec) 100 (6) 409-13.  
Journal code: 0411300. ISSN: 0301-5564.

L9 ANSWER 8 OF 31 MEDLINE  
TI Enhancement of gastric mucosal epidermal **growth factor** and platelet-derived **growth factor** receptor expression by sucralfate.  
SO GENERAL PHARMACOLOGY, (1992 Jul) 23 (4) 715-8.  
Journal code: 7602417. ISSN: 0306-3623.

L9 ANSWER 9 OF 31 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.  
TI Safety and efficacy of repifermin (KGF-2) in reducing mucositis in patients undergoing autologous hematopoietic stem cell transplantation

(auto-HSCT): Results of a phase 2a trial.  
SO Blood, (November 16, 2001) Vol. 98, No. 11 Part 2, pp. 346b-347b.  
<http://www.bloodjournal.org/>. print.  
Meeting Info.: 43rd Annual Meeting of the American Society of Hematology,  
Part 2 Orlando, Florida, USA December 07-11, 2001  
ISSN: 0006-4971.

L9 ANSWER 10 OF 31 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.  
TI Parenteral repifermin (keratinocyte **growth factor**-2) administration promotes mucosal hyperplasia throughout the alimentary tract in normal monkeys.  
SO Blood, (November 16, 2000) Vol. 96, No. 11 Part 2, pp. 306b. print.  
Meeting Info.: 42nd Annual Meeting of the American Society of Hematology  
San Francisco, California, USA December 01-05, 2000 American Society of Hematology  
ISSN: 0006-4971.

L9 ANSWER 11 OF 31 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.  
TI GASTRIC FUNDIC MUCOUS EPITHELIAL CELLS ISOLATED FROM OMEPRAZOLE-TREATED GUINEA-PIGS HAVE INCREASED BASAL AND HORMONE-STIMULATED GROWTH RATES.  
SO DIGESTION, (1991 (1992)) 50 (1), 7-15.  
CODEN: DIGEBW. ISSN: 0012-2823.

L9 ANSWER 12 OF 31 CAPLUS COPYRIGHT 2002 ACS  
TI Method of isolating epithelial cells, method of preconditioning cells, and methods of preparing bioartificial skin and dermis with the epithelial cells or the preconditioned cells  
SO PCT Int. Appl., 72 pp.  
CODEN: PIXXD2

L9 ANSWER 13 OF 31 CAPLUS COPYRIGHT 2002 ACS  
TI Effect of ectopic expression of rat trefoil factor family 3 (intestinal trefoil factor) in the jejunum of transgenic mice  
SO Journal of Biological Chemistry (2001), 276(26), 24088-24096  
CODEN: JBCHA3; ISSN: 0021-9258

L9 ANSWER 14 OF 31 CAPLUS COPYRIGHT 2002 ACS  
TI Insulin-like **growth factor**-1 modulation of intestinal epithelial cell restitution  
SO JPEN, Journal of Parenteral and Enteral Nutrition (1999), 23(5, Suppl.), S89-S92  
CODEN: JPENDU; ISSN: 0148-6071

L9 ANSWER 15 OF 31 CAPLUS COPYRIGHT 2002 ACS  
TI Sequential expression of adrenomedullin and its receptor during gastric **ulcer** healing in rats  
SO Digestive Diseases and Sciences (2000), 45(3), 591-598  
CODEN: DDSCDJ; ISSN: 0163-2116

L9 ANSWER 16 OF 31 CAPLUS COPYRIGHT 2002 ACS  
TI Trefoil peptides  
SO Gut (1999), 44(6), 890-895  
CODEN: GUTTAK; ISSN: 0017-5749

L9 ANSWER 17 OF 31 CAPLUS COPYRIGHT 2002 ACS  
TI Effect of recombinant human basic fibroblast **growth factor** on stomach **ulcers** in rats and mice  
SO Zhongguo Yaoli Xuebao (1999), 20(8), 763-768  
CODEN: CYLPDN; ISSN: 0253-9756

L9 ANSWER 18 OF 31 CAPLUS COPYRIGHT 2002 ACS  
TI Factor XIII modulates intestinal epithelial wound healing in vitro  
SO Scandinavian Journal of Gastroenterology (1999), 34(5), 485-490  
CODEN: SJGRA4; ISSN: 0036-5521

L9 ANSWER 19 OF 31 CAPLUS COPYRIGHT 2002 ACS  
TI Trefoil peptide TFF2 (spasmolytic polypeptide) potentially accelerates healing and reduces inflammation in a rat model of colitis  
SO Gut (1999), 44(5), 636-642  
CODEN: GUTTAK; ISSN: 0017-5749

L9 ANSWER 20 OF 31 CAPLUS COPYRIGHT 2002 ACS  
TI Insulin-like **growth factor** I plays a role in gastric wound healing: evidence using a zinc derivative, polaprezinc, and an in vitro rabbit wound repair model  
SO Alimentary Pharmacology and Therapeutics (1998), 12(11), 1131-1138  
CODEN: APTHEN; ISSN: 0269-2813

L9 ANSWER 21 OF 31 CAPLUS COPYRIGHT 2002 ACS  
TI Uses of keratinocyte **growth factor**-2  
SO PCT Int. Appl., 98 pp.  
CODEN: PIXXD2

L9 ANSWER 22 OF 31 CAPLUS COPYRIGHT 2002 ACS  
TI Insulin-like **growth factor**-I partially attenuates colonic damage in rats with experimental colitis induced by oral dextran sulfate sodium  
SO Scandinavian Journal of Gastroenterology (1998), 33(2), 180-190  
CODEN: SJGRA4; ISSN: 0036-5521

L9 ANSWER 23 OF 31 CAPLUS COPYRIGHT 2002 ACS  
TI Cellular and molecular mechanisms of **ulcer** healing  
SO Drugs of Today (1997), 33(10), 697-706  
CODEN: MDACAP; ISSN: 0025-7656

L9 ANSWER 24 OF 31 CAPLUS COPYRIGHT 2002 ACS  
TI Roles of hepatocyte **growth factor** and its receptor Met during gastric **ulcer** healing in rats  
SO Gastroenterology (1997), 113(6), 1858-1872  
CODEN: GASTAB; ISSN: 0016-5085

L9 ANSWER 25 OF 31 CAPLUS COPYRIGHT 2002 ACS  
TI Macrophage stimulating protein for the **treatment** of gastrointestinal disorders  
SO PCT Int. Appl., 56 pp.  
CODEN: PIXXD2

L9 ANSWER 26 OF 31 CAPLUS COPYRIGHT 2002 ACS  
TI Molecular aspects of restitution: functions of trefoil peptides  
SO Yale Journal of Biology and Medicine (1996), 69(2), 137-146  
CODEN: YJBMAU; ISSN: 0044-0086

L9 ANSWER 27 OF 31 CAPLUS COPYRIGHT 2002 ACS  
TI Increased expression of transforming **growth factor** -beta.1 during gastric **ulcer** healing in rats  
SO Digestive Diseases and Sciences (1997), 42(3), 616-625  
CODEN: DDSCDJ; ISSN: 0163-2116

L9 ANSWER 28 OF 31 CAPLUS COPYRIGHT 2002 ACS  
TI Methods of enhancing epithelial cell proliferation  
SO PCT Int. Appl., 38 pp.  
CODEN: PIXXD2

L9 ANSWER 29 OF 31 CAPLUS COPYRIGHT 2002 ACS  
TI Epidermal **growth factor** promotes rapid response to epithelial injury in rabbit duodenum in vitro  
SO Gastroenterology (1996), 111(1), 28-36  
CODEN: GASTAB; ISSN: 0016-5085

L9 ANSWER 30 OF 31 CAPLUS COPYRIGHT 2002 ACS  
TI TGF-beta.1 augments expression of the TIS10/prostaglandin

synthase-2 gene  
in intestinal epithelial cells  
SO Cellular & Molecular Biology Research (1994), 40(7/8), 653-60  
CODEN: CMBREW; ISSN: 0968-8773

L9 ANSWER 31 OF 31 CAPLUS COPYRIGHT 2002 ACS  
TI Keratinocyte **growth factor** (KGF) stimulation of epithelial cell proliferation and its therapeutic use  
SO Eur. Pat. Appl., 48 pp.  
CODEN: EPXXDW

=> d ibib ab 29,27,24,22,10,1

L9 ANSWER 29 OF 31 CAPLUS COPYRIGHT 2002 ACS  
ACCESSION NUMBER: 1996:471953 CAPLUS  
DOCUMENT NUMBER: 125:133685  
TITLE: Epidermal **growth factor** promotes rapid response to epithelial injury in rabbit duodenum in vitro

AUTHOR(S): Riegler, Martin; Sedivy, Roland; Sogukoglu, Tacettin;  
Cosentini, Enrico; Bischof, Georg; Teleky, Bela; Feil, Wolfgang; Schiessel, Rudolf; Hamilton, Gerhard; Wenzl, Etienne

CORPORATE SOURCE: University Clinic Surgery, Vienna, Austria

SOURCE: Gastroenterology (1996), 111(1), 28-36  
CODEN: GASTAB; ISSN: 0016-5085

PUBLISHER: Saunders  
DOCUMENT TYPE: Journal  
LANGUAGE: English

AB **Growth factors** are mainly involved in the regulation of intestinal epithelial barrier function. This study investigated the effect of epidermal **growth factor** (EGF) and insulin-like **growth factor** 1 (IGF-1) on epithelial restitution of rabbit duodenum in vitro. Rabbit duodenal mucosal strips mounted in an Ussing chamber were luminally exposed to 10 mmol/L HCl for 10 min and then incubated with buffer alone or luminal buffer contg. various concns. of EGF and IGF-1 for 3 h. Resistance was calcd. from p.d. and short-circuit current. Damage was assessed by morphometry on H&E-stained sections. HCl caused resistance to decrease from 112 to 51 .OMEGA. .times. cm2 10 min after injury. Postinjury **treatment** with 25 or 50 ng/mL luminal EGF for 3 h stimulated resistance to recover to 94 and 104 .OMEGA. .times. cm2, resp., vs. 81 .OMEGA. .times. cm2 in controls. Ten minutes after injury, 62% of the mucosa was damaged; 3 h after injury, damage was reduced to 24% and 10% in the 25 and 50 ng/mL EGF group, resp., vs. 38% in controls (per group). EGF stimulated enterocyte migration. IGF-1 did not impair epithelial restitution. EGF, but not IGF-1, promoted epithelial restitution of rabbit duodenum in vitro.

L9 ANSWER 27 OF 31 CAPLUS COPYRIGHT 2002 ACS  
ACCESSION NUMBER: 1997:236601 CAPLUS  
DOCUMENT NUMBER: 126:272765  
TITLE: Increased expression of transforming **growth factor** -beta.1 during gastric **ulcer** healing in rats  
AUTHOR(S): Tominaga, Kazunari; Arakawa, Tetsuo; Kim, Shokei;  
Iwao, Hiroshi; Kobayashi, Kenzo  
CORPORATE SOURCE: Third Department of Internal Medicine and Department of Pharmacology, Osaka City University Medical School,  
Osaka, 545, Japan

SOURCE: Digestive Diseases and Sciences (1997), 42(3),  
616-625

CODEN: DDSCDJ; ISSN: 0163-2116

PUBLISHER: Plenum

DOCUMENT TYPE: Journal

LANGUAGE: English

AB This study was done to investigate the expression and localization of

transforming **growth factor**-.beta.1 (TGF-.beta.1) in the gastric **ulcerated** tissues produced by acetic-acid during the healing process, by Northern blot anal. and immunohistochem.

technique.

**Ulcerated** TGF-.beta.1 mRNA levels were significantly increased from days 3 to 18, in a similar manner to extracellular matrix proteins;

and returned to control levels at the scarred phase. Immunoreactive TGF-.beta.1 was localized in epithelial cells beneath proliferative

zone

in intact tissues. In **ulcerated** tissues, TGF-.beta.1 was localized in macrophages in the **ulcer** bed and in fibroblasts or myofibroblasts in the granulation tissues. **Treatment** with prostaglandin E1 (PGE1) further stimulated **ulcerated** TGF-.beta.1 expression, being assocd. with the acceleration of gastric **ulcer** healing, while **treatment** with indomethacin reduced TGF-.beta.1 expression, being accompanied by the delayed **ulcer** healing. The combination of PGE1 and indomethacin reversed the indomethacin-induced

decrease in **ulcerated** TGF-.beta.1. Thus, TGF-.beta.1 may be implicated in the acceleration of gastric **ulcer** healing.

L9 ANSWER 24 OF 31 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1997:810684 CAPLUS

DOCUMENT NUMBER: 128:100624

TITLE: Roles of hepatocyte **growth factor** and its receptor Met during gastric **ulcer** healing in rats

AUTHOR(S): Schmassmann, Adrian; Stettler, Christian; Poulosom,

Richard; Tarasova, Nadya; Hirschi, Claudia; Flogerzi, Beatrice; Matsumoto, Kunio; Nakamura, Toshikazu; Halter, Fred

CORPORATE SOURCE: Gastrointestinal Unit, Inselspital, University

Hospital, Bern, Switz.

SOURCE: Gastroenterology (1997), 113(6), 1858-1872

CODEN: GASTAB; ISSN: 0016-5085

PUBLISHER: W. B. Saunders Co.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB It is unclear which **growth factors** are primarily responsible for stimulating gastric **ulcer** healing. The roles of hepatocyte **growth factor** (HGF) and Met/HGF receptor during gastric **ulcer** healing were studied in rats. HGF and Met/HGF receptor were located and quantified by in situ hybridization and immunohistochem. during exptl. gastric **ulcer** healing. The in vivo effects of exogenous recombinant human HGF on cell proliferation and **ulcer** healing were assessed and compared with those of placebo and omeprazole **treatment**. Compared with intact oxyntic mucosa, mRNA of HGF and met was substantially greater in the **ulcerated** region on days 3 and 15. HGF mRNA was located in stromal cells between the

regenerative glands and in the arterial vessels of submucosal tissue, whereas met mRNA was located in the epithelial cells of the regenerative

glands. After cryoinjury, immunoreactivity for the Met/HGF receptor was

absent on day 3, reappeared on day 8, and was overexpressed on day 15.

Exogenous recombinant human HGF had no effect on the **ulcer** healing parameters over days 3-8, but it did increase epithelial cell proliferation in the **ulcer** margin over days 8-15. These data

suggest that HGF mediates specific tissue interactions between mesenchyme and epithelia during gastric **ulcer** healing.

L9 ANSWER 22 OF 31 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1998:175155 CAPLUS

DOCUMENT NUMBER: 128:266623

TITLE: Insulin-like **growth factor**-I partially attenuates colonic damage in rats with experimental colitis induced by oral dextran sulfate sodium

AUTHOR(S): Howarth, G. S.; Xian, C. J.; Read, L. C.

CORPORATE SOURCE: Cooperative Research Centre for Tissue Growth and

Repair and Child Health Research Institute, North Adelaide, 5006, Australia

SOURCE: Scandinavian Journal of Gastroenterology (1998), 33(2), 180-190

CODEN: SJGRA4; ISSN: 0036-5521

PUBLISHER: Scandinavian University Press

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Administration of insulin-like **growth factor**-I (IGF-I)

results in selective growth of the gastrointestinal tract. The authors investigated the effects of IGF-I on the colonic damage induced by oral

dextran sulfate sodium (DSS) in the rat. Rats consumed 2% DSS in the

drinking water for 10 days to induce colitis. Pumps were implanted on day

3 to deliver IGF-I for 7 days. Colonic histopathol. and immunolocalization of transforming **growth factor**

-.beta.1 (TGF-.beta.1) were assessed on day 10. Compared with the colon

of vehicle-**treated** rats consuming DSS, IGF-I increased the nos. of goblet cells by 76%, reduced the proportion of lamina propria cells expressing TGF-.beta.1, and reduced the thickness of submucosal and muscularis externa layers by 26% and 20%, resp. The authors

conclude that

the effects of IGF-I **treatment** on the colonic epithelium may be mediated directly, whereas the reduced inflammation in the mucosa and

submucosa may be mediated by a mechanism other than up-regulation of

TGF-.beta.1-mediated immunosuppression.

L9 ANSWER 10 OF 31 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.

ACCESSION NUMBER: 2001:326901 BIOSIS

DOCUMENT NUMBER: PREV200100326901

TITLE: Parenteral repifermin (keratinocyte **growth factor**-2) administration promotes mucosal hyperplasia throughout the alimentary tract in normal monkeys.

AUTHOR(S): Parry, Tom J. (1); Fikes, James D. (1)

CORPORATE SOURCE: (1) Preclinical Development, Human Genome Sciences Inc.,

Rockville, MD USA

SOURCE: Blood, (November 16, 2000) Vol. 96, No. 11 Part 2, pp.

306b. print.

Meeting Info.: 42nd Annual Meeting of the American

Society

of Hematology San Francisco, California, USA December 01-05, 2000 American Society of Hematology . ISSN: 0006-4971.

DOCUMENT TYPE: Conference

LANGUAGE: English

SUMMARY LANGUAGE: English

AB Complications arising from mucositis following chemotherapy or radiation

protocols often limit cancer **treatment**. The development of a single agent that promotes mucosal healing associated with radiation and/or chemotherapy-induced mucosal damage is desirable.

Repifermin is an

FGF-like **epithelial** mitogen that has been shown to reestablish intestinal mucosa in a rodent **ulcerative** colitis model. The goal of this study was to determine whether daily administration of repifermin

promotes **epithelial** hyperplasia within the alimentary tract of normal cynomolgus monkeys. Vehicle (IV only) or repifermin was administered intravenously (20, 75 or 200 ug/kg/d) or subcutaneously (750

ug/kg/d) once daily to normal cynomolgus monkeys over 29 days. A 28 day

recovery subgroup was also included for the vehicle as well as SC and 200

ug/kg/d IV groups. Repifermin-induced changes were noted throughout the

alimentary tract. **Epithelial** hyperplasia in the buccal mucosa and dorsal aspect of the tongue was noted in all animals receiving repifermin. Esophageal mucosal thickening was observed at necropsy in the

high dose IV group. This correlated histologically with minimal to mild

esophageal **epithelial** hyperplasia that was noted in all **treatment** groups (including SC). The incidence and degree of this hyperplastic response were dose-dependent in the IV-**treated** animals. No mucosal changes were seen in the **stomach**.

Additionally, repifermin induced mucosal and goblet cell hyperplasia throughout the **intestine**. Following the recovery period, the incidence and degree of the hyperplastic changes were substantially reduced or completely resolved. These results indicate that repifermin stimulates reversible mucosal hyperplasia throughout most segments of the

alimentary tract of normal monkeys. By extension, repifermin may be useful

in **treating** chemo- and radiation therapy-induced mucositis in transplant patients.

L9 ANSWER 1 OF 31 MEDLINE

ACCESSION NUMBER: 2002391479 MEDLINE

DOCUMENT NUMBER: 22135427 PubMed ID: 12139710

TITLE: The effects of keratinocyte **growth factor** in preclinical models of mucositis.

AUTHOR: Farrell C L; Rex K L; Chen J N; Bready J V; DiPalma C R;

Kaufman S A; Rattan A; Scully S; Lacey D L

CORPORATE SOURCE: Department of pathology, Amgen, Inc., One Amgen Center

Drive, Thousand Oaks CA 91320, USA..

cfarrell@amgen.com

SOURCE: CELL PROLIFERATION, (2002 Aug) 35 Suppl 1 78-85. Ref: 17

Journal code: 9105195. ISSN: 0960-7722.

PUB. COUNTRY: England: United Kingdom

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

General Review; (REVIEW)

(REVIEW LITERATURE)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 200209

ENTRY DATE: Entered STN: 20020726

Last Updated on STN: 20020914

Entered Medline: 20020913

AB The **epithelium** of the oral cavity and small **intestine**

of the gastrointestinal tract have a high rate of cell renewal and as such, are sensitive to cytotoxic therapies that kill rapidly dividing cells. Mucositis is a complication of cancer therapy where impairment of

the regenerative capacity of the **epithelium** leads to atrophy,

**ulceration** and a loss of barrier function. Keratinocyte

**growth factor** (KGF) is an **epithelial**

cell-specific growth and differentiation factor that is trophic for the

mucosal **epithelium** of the gastrointestinal tract. In this study,

KGF in normal animals caused **epithelial** thickening in the

squamous **epithelium** of the oral cavity and increased crypt depth

and villus height of the small **intestine**. It also appeared to

regulate gene expression in these tissues including that of some antioxidant enzymes and intestinal trefoil protein. KGF has been shown to

be efficacious in several preclinical models of mucositis where KGF pretreatment reduced weight loss typically seen during and after the course of therapy and significantly improved survival. At a tissue level

KGF reduced atrophy, accelerated regrowth, and decreased **ulcer** formation of the oral **epithelium** after irradiation, and improved crypt survival and prevented villus atrophy in the small **intestine** of irradiated or chemotherapy-**treated** mice. Preliminary studies suggest that its efficacy may be partly a consequence of the growth and

differentiation effect, and also partly due to regulation of the expression of genes that play a role in mucosal protection. These data suggest that KGF may be useful for the prevention or **treatment** of mucositis in patients **treated** with regimens of cancer therapy that have gastrointestinal toxicity.

=> d his

(FILE 'HOME' ENTERED AT 11:52:34 ON 17 SEP 2002)

FILE 'MEDLINE, BIOSIS, CAPLUS' ENTERED AT 11:53:34 ON 17 SEP 2002

L1 445749 S GROWTH FACTOR OR GROWTH STIM?

L2 27684 S (INTESTINE OR STOMACH)(S)EPITHEL?

L3 1393 S L2 AND L1

L4 6121815 S TREAT?

L5 282 S L3 AND L4

L6 207 DUP REM L5 (75 DUPLICATES REMOVED)

L7 6 S L6 AND REVIEW

L8 256835 S ULCER? OR CROHN?

L9 31 S L6 AND L8

=> s clinic?

L10 2681681 CLINIC?

=> s l6 and l10

L11 12 L6 AND L10

=> d ti so l-12

L11 ANSWER 1 OF 12 MEDLINE

TI rHuKGF ameliorates symptoms in DSS and CD4(+)CD45RB(Hi) T cell transfer

mouse models of inflammatory bowel disease.

SO AMERICAN JOURNAL OF PHYSIOLOGY.

GASTROINTESTINAL AND LIVER PHYSIOLOGY,

(2002 Apr) 282 (4) G690-701.

Journal code: 100901227. ISSN: 0193-1857.

L11 ANSWER 2 OF 12 MEDLINE

TI Systemic proliferative changes and **clinical** signs in cynomolgus monkeys administered a recombinant derivative of human epidermal **growth factor**.

SO TOXICOLOGIC PATHOLOGY, (2001 Mar-Apr) 29 (2) 159-73.

Journal code: 7905907. ISSN: 0192-6233.

L11 ANSWER 3 OF 12 MEDLINE

TI Gastrointestinal stromal tumors--definition, **clinical**, histological, immunohistochemical, and molecular genetic features and differential diagnosis.

SO VIRCHOWS ARCHIV, (2001 Jan) 438 (1) 1-12. Ref: 81

Journal code: 9423843. ISSN: 0945-6317.

L11 ANSWER 4 OF 12 MEDLINE

TI Heparin-binding epidermal **growth factor**-like **growth factor** protects rat intestine from ischemia/reperfusion injury.

SO JOURNAL OF SURGICAL RESEARCH, (1999 Dec) 87 (2) 225-31.

- L11 ANSWER 5 OF 12 MEDLINE  
TI Keratinocyte **growth factor** protects mice from chemotherapy and radiation-induced gastrointestinal injury and mortality.  
SO CANCER RESEARCH, (1998 Mar 1) 58 (5) 933-9.  
Journal code: 2984705R. ISSN: 0008-5472.
- L11 ANSWER 6 OF 12 MEDLINE  
TI Non-steroidal anti-inflammatory drug gastropathy: causes and **treatment**.  
SO SCANDINAVIAN JOURNAL OF GASTROENTEROLOGY. SUPPLEMENT, (1996) 220 124-7.  
Ref: 34  
Journal code: 0437034. ISSN: 0085-5928.
- L11 ANSWER 7 OF 12 MEDLINE  
TI Interleukin-11 prevents apoptosis and accelerates recovery of small intestinal mucosa in mice **treated** with combined chemotherapy and radiation.  
SO LABORATORY INVESTIGATION, (1996 Jul) 75 (1) 33-42.  
Journal code: 0376617. ISSN: 0023-6837.
- L11 ANSWER 8 OF 12 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.  
TI Safety and efficacy of repifermin (KGF-2) in reducing mucositis in patients undergoing autologous hematopoietic stem cell transplantation (auto-HSCT): Results of a phase 2a trial.  
SO Blood, (November 16, 2001) Vol. 98, No. 11 Part 2, pp. 346b-347b.  
<http://www.bloodjournal.org/>. print.  
Meeting Info.: 43rd Annual Meeting of the American Society of Hematology,  
Part 2 Orlando, Florida, USA December 07-11, 2001  
ISSN: 0006-4971.
- L11 ANSWER 9 OF 12 CAPLUS COPYRIGHT 2002 ACS  
TI Possible mechanisms of diarrheal side effects associated with the use of a novel chemotherapeutic agent, flavopiridol  
SO Clinical Cancer Research (2001), 7(2), 343-349  
CODEN: CCREF4; ISSN: 1078-0432
- L11 ANSWER 10 OF 12 CAPLUS COPYRIGHT 2002 ACS  
TI Protective effect of keratinocyte **growth factor** on intestinal epithelial cell line No. 6 after irradiation  
SO Di-San Junyi Daxue Xuebao (2000), 22(8), 713-716  
CODEN: DYXUE8; ISSN: 1000-5404
- L11 ANSWER 11 OF 12 CAPLUS COPYRIGHT 2002 ACS  
TI Does the response of the intestinal epithelium to keratinocyte **growth factor** vary according to the method of administration?  
SO Regulatory Peptides (2000), 87(1-3), 83-90  
CODEN: REPPDY; ISSN: 0167-0115
- L11 ANSWER 12 OF 12 CAPLUS COPYRIGHT 2002 ACS  
TI Interleukin-11 induces intestinal epithelial cell growth arrest through effects on retinoblastoma protein phosphorylation  
SO American Journal of Pathology (1996), 149(3), 895-902  
CODEN: AJPAA4; ISSN: 0002-9440
- => d ibib ab 11,8
- L11 ANSWER 11 OF 12 CAPLUS COPYRIGHT 2002 ACS  
ACCESSION NUMBER: 2000:84485 CAPLUS  
DOCUMENT NUMBER: 132:261019  
TITLE: Does the response of the intestinal epithelium to keratinocyte **growth factor** vary according to the method of administration?  
AUTHOR(S): Goodlad, R. A.; Mandir, N.; Meeran, K.; Gbatei,

M. A.;

- Bloom, S. R.; Playford, R. J.  
CORPORATE SOURCE: Histopathology Unit, Imperial Cancer Research Fund,  
London, UK  
SOURCE: Regulatory Peptides (2000), 87(1-3), 83-90  
CODEN: REPPDY; ISSN: 0167-0115  
PUBLISHER: Elsevier Science Ireland Ltd.  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
AB Keratinocyte **growth factor** (KGF) is a potent mitogen and may be of value for the **treatment** of conditions such as short bowel syndrome and chemotherapy-induced mucositis. However the most efficacious route and method of administration is unclear. Rats maintained by total parenteral nutrition (TPN) were given KGF (1 mg/kg/rat/day, i.v.) infused continuously or as a once-daily injection. The same dose was also given s.c. to chow-fed rats. Changes in gut growth were assessed by measurement of wet wt., proliferation (vincristine induced metaphase arrest) and crypt branching index. Changes in gut hormone profile were also detd. to examine if any trophic effects were mediated via this mechanism. KGF caused a 70-100% increase in wet wt. of the stomach, small and large intestine of TPN-fed rats with no significant differences seen between the two methods of administration. The increase in metaphase counts was greatest in the stomach (about seven-fold), but was less pronounced in the distal small intestine and colon (about 50% increase). The trophic effect of KGF was much less prominent in orally-fed rats. Crypt branching index was significantly reduced by KGF in the proximal small intestine of TPN, but not orally-fed rats. Plasma gastrin, PYY, total glucagon, enteroglucagon and GLP-I all increased by two-three-fold in response to KGF, whereas insulin levels fell by about 25% in the TPN group. The mitogenic action of KGF occurred predominantly in the stomach and proximal small intestine. Its efficacy was less pronounced in orally-fed animals, suggesting KGF may be of greatest benefit in conditions assocd. with lowered intestinal proliferation. **Clin.** trials of KGF can probably use single daily iv injections without redn. in efficacy.
- REFERENCE COUNT: 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT
- L11 ANSWER 8 OF 12 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.  
ACCESSION NUMBER: 2002:152864 BIOSIS  
DOCUMENT NUMBER: PREV200200152864  
TITLE: Safety and efficacy of repifermin (KGF-2) in reducing mucositis in patients undergoing autologous hematopoietic stem cell transplantation (auto-HSCT): Results of a phase 2a trial.  
AUTHOR(S): Freytes, Cesar (1); LeVeque, Francis; Meiseniberg, Barry;  
Taylor, Charles; Ratanatharathorn, Voravit; Schubert, Mark; Odenheimer, Daniel; Chesser, Nancy; Navarro, Willis;  
Khan,  
Shahab; deMagalhaes-Silverman, M.; Abboud, Camille;  
Costa,  
Joseph  
CORPORATE SOURCE: (1) University of Texas Health Science Center, San Antonio,  
TX USA  
SOURCE: Blood, (November 16, 2001) Vol. 98, No. 11 Part 2,



pp. 346b-347b. <http://www.bloodjournal.org/>. print.  
Meeting Info.: 43rd Annual Meeting of the American  
Society of Hematology, Part 2 Orlando, Florida, USA December 07-  
11, 2001  
ISSN: 0006-4971.

DOCUMENT TYPE: Conference

LANGUAGE: English

AB Repifermin (KGF-2.) is a member of the fibroblast **growth factor** family that was discovered by screening a genomics derived library of secreted proteins. It has a receptor binding profile and tissue

expression pattern that suggests a unique profile of pharmacological activities. Repifermin, has been shown to cause **epithelial** hyperplasia and mucosal thickening throughout the entire gastrointestinal

tract except for the **stomach**. These results suggest that repifermin may be useful in **treating** chemo- and radiation therapy-induced mucositis. A phase 2a rising dose trial was conducted to

evaluate the safety of 5 doses of iv repifermin (1 mug/kg, 5 mug/kg, 10

mug/kg, 25 mug/kg, or 50 mug/kg) administered daily for 14 days after

autologous HSCT. To obtain a preliminary evaluation of efficacy, this

study was randomized, double-blind, and placebo-controlled (2:1 randomization KGF:placebo) within each dose level. Conditioning regimens

allowed were expected to produce at least a 50% incidence of NCI-CTC Grade

3 or Grade 4 mucositis with standard mucositis management. Ninety-one

subjects were enrolled in the trial; 61 **treated** with repifermin and 30 **treated** with placebo. Results of the preliminary safety analysis for the first four cohorts (n=70) are available. The most

common diagnoses were non-Hodgkin's lymphoma (33%), multiple myeloma (30%), and

Hodgkin's disease (14%). There were 45 males and 25 females. The median

age was 51 years. Repifermin was well tolerated. The incidence of related

and unrelated adverse events, including the most common events (fever,

bacterial infection, anorexia, diarrhea, nausea, and rash), occurred in a

similar frequency of repifermin and placebo **treated** subjects.

There were no differences between groups for any **clinical** laboratory parameters evaluated. Elevations to grade 3 or 4 amylase values

occurred in 22% of placebo **treated** subjects and 22% of repifermin **treated** subjects. The overall incidence of Grade 3 and Grade 4 mucositis was 38%. The activity of repifermin was

measured by the Oral Mucositis Assessment Scale (OMAS), a validated scale that evaluates multiple regions of the oral cavity for erythema and ulceration/pseudomembranes, the NCI-CTC toxicity scale, the frequency and

duration diarrhea, and quality of life assessments including ambient oral

pain and pain on swallowing. The trial has recently completed accrual and

final safety and efficacy results will be presented.

=> d his

(FILE 'HOME' ENTERED AT 11:52:34 ON 17 SEP 2002)

FILE 'MEDLINE, BIOSIS, CAPLUS' ENTERED AT 11:53:34 ON 17 SEP 2002

L1 445749 S GROWTH FACTOR OR GROWTH STIM?  
L2 27684 S (INTESTINE OR STOMACH)(S)EPITHEL?  
L3 1393 S L2 AND L1  
L4 6121815 S TREAT?  
L5 282 S L3 AND L4  
L6 207 DUP REM L5 (75 DUPLICATES REMOVED)  
L7 6 S L6 AND REVIEW  
L8 256835 S ULCER? OR CROHN?  
L9 31 S L6 AND L8  
L10 2681681 S CLINIC?  
L11 12 S L6 AND L10

=> s freytes?/au and leveque?/au

L12 1 FREYTES?/AU AND LEVEQUE?/AU

=> d ti so

L12 ANSWER 1 OF 1 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.

T1 Safety and efficacy of repifermin (KGF-2) in reducing mucositis in patients undergoing autologous hematopoietic stem cell transplantation

(auto-HSCT): Results of a phase 2a trial.

SO Blood, (November 16, 2001) Vol. 98, No. 11 Part 2, pp. 346b-347b.

<http://www.bloodjournal.org/>. print.

Meeting Info.: 43rd Annual Meeting of the American Society of Hematology,

Part 2 Orlando, Florida, USA December 07-11, 2001

ISSN: 0006-4971.

=> d his

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FILE 'MEDLINE, BIOSIS, CAPLUS' ENTERED AT 11:53:34 ON 17 SEP 2002

L1 445749 S GROWTH FACTOR OR GROWTH STIM?  
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L4 6121815 S TREAT?  
L5 282 S L3 AND L4  
L6 207 DUP REM L5 (75 DUPLICATES REMOVED)  
L7 6 S L6 AND REVIEW  
L8 256835 S ULCER? OR CROHN?  
L9 31 S L6 AND L8  
L10 2681681 S CLINIC?  
L11 12 S L6 AND L10  
L12 1 S FREYTES?/AU AND LEVEQUE?/AU

=> log hold

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SINCE FILE TOTAL

ENTRY	SESSION
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NEWS 6 Apr 22 Records from IP.com available in CAPLUS, HCAPLUS, and ZCAPLUS  
NEWS 7 Apr 22 BIOSIS Gene Names now available in TOXCENTER  
NEWS 8 Apr 22 Federal Research in Progress (FEDRIP) now available  
NEWS 9 Jun 03 New e-mail delivery for search results now available  
NEWS 10 Jun 10 MEDLINE Reload  
NEWS 11 Jun 10 PCTFULL has been reloaded  
NEWS 12 Jul 02 FOREGE no longer contains STANDARDS file segment  
NEWS 13 Jul 22 USAN to be reloaded July 28, 2002; saved answer sets no longer valid  
NEWS 14 Jul 29 Enhanced polymer searching in REGISTRY  
NEWS 15 Jul 30 NETFIRST to be removed from STN  
NEWS 16 Aug 08 CANCERLIT reload  
NEWS 17 Aug 08 PHARMAMarketLetter(PHARMAML) - new on STN  
NEWS 18 Aug 08 NTIS has been reloaded and enhanced  
NEWS 19 Aug 19 Aquatic Toxicity Information Retrieval (AQUIRE) now available on STN  
NEWS 20 Aug 19 IFIPAT, IFICDB, and IFIUDB have been reloaded  
NEWS 21 Aug 19 The MEDLINE file segment of TOXCENTER has been reloaded  
NEWS 22 Aug 26 Sequence searching in REGISTRY enhanced  
NEWS 23 Sep 03 JAPIO has been reloaded and enhanced  
NEWS 24 Sep 16 Experimental properties added to the REGISTRY file  
NEWS 25 Sep 16 Indexing added to some pre-1967 records in CA/CAPLUS  
NEWS 26 Sep 16 CA Section Thesaurus available in CAPLUS and CA

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CURRENT MACINTOSH VERSION IS V6.0a(ENG) AND V6.0Ja(JP),

AND CURRENT DISCOVER FILE IS DATED 05

FEBRUARY 2002

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=> s peptide bind?

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=> file medline

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	ENTRY	SESSION
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FILE 'MEDLINE' ENTERED AT 07:35:13 ON 23 SEP 2002

FILE LAST UPDATED: 21 SEP 2002 (20020921/UP). FILE COVERS 1958 TO DATE.

On June 9, 2002, MEDLINE was reloaded. See HELP RLOAD for details.

MEDLINE thesauri in the /CN, /CT, and /MN fields incorporate the MeSH 2002 vocabulary. Enter HELP THESAURUS for details.

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=> s peptide bind?

237997 PEPTIDE  
144807 PEPTIDES  
313887 PEPTIDE  
(PEPTIDE OR PEPTIDES)  
630948 BIND?

L1 3223 PEPTIDE BIND?  
(PEPTIDE(W)BIND?)

=> s ll and review

301618 REVIEW  
36979 REVIEWS  
331250 REVIEW  
(REVIEW OR REVIEWS)

L2 59 L1 AND REVIEW

=> s amino acid

504659 AMINO  
6 AMINOS  
504663 AMINO  
(AMINO OR AMINOS)  
1137437 ACID  
433258 ACIDS  
1320356 ACID  
(ACID OR ACIDS)

L3 453285 AMINO ACID  
(AMINO(W)ACID)

=> s l2 and l3

L4 25 L2 AND L3

=> d ti so 1-25

L4 ANSWER 1 OF 25 MEDLINE

TI The physiology and pharmacology of the orexins.

SO PHARMACOLOGY AND THERAPEUTICS, (2002 Apr-May) 94 (1-2) 51.

Journal code: 7905840. ISSN: 0163-7258.

L4 ANSWER 2 OF 25 MEDLINE

TI Quantitative approaches to computational vaccinology.

SO IMMUNOLOGY AND CELL BIOLOGY, (2002 Jun) 80 (3) 270-9.

Journal code: 8706300. ISSN: 0818-9641.

- L4 ANSWER 3 OF 25 MEDLINE  
 TI An integrated view of the roles and mechanisms of heat shock protein gp96-peptide complex in eliciting immune response.  
 SO FRONTIERS IN BIOSCIENCE, (2002 Mar 1) 7 d731-51. Ref: 164  
 Journal code: 9702166. ISSN: 1093-4715.
- L4 ANSWER 4 OF 25 MEDLINE  
 TI Peptides and ATP binding cassette peptide transporters.  
 SO RESEARCH IN MICROBIOLOGY, (2001 Apr-May) 152 (3-4) 245-58. Ref: 59  
 Journal code: 8907468. ISSN: 0923-2508.
- L4 ANSWER 5 OF 25 MEDLINE  
 TI The hsp110 and Grp170 stress proteins: newly recognized relatives of the Hsp70s.  
 SO CELL STRESS AND CHAPERONES, (2000 Oct) 5 (4) 276-90. Ref: 80  
 Journal code: 9610925. ISSN: 1355-8145.
- L4 ANSWER 6 OF 25 MEDLINE  
 TI What to do with HLA-DO?  
 SO IMMUNOGENETICS, (2000 Aug) 51 (10) 765-70. Ref: 49  
 Journal code: 0420404. ISSN: 0093-7711.
- L4 ANSWER 7 OF 25 MEDLINE  
 TI GRP94, an ER chaperone with protein and **peptide binding** properties.  
 SO SEMINARS IN CELL AND DEVELOPMENTAL BIOLOGY, (1999 Oct) 10 (5) 495-505. Ref: 92  
 Journal code: 9607332. ISSN: 1084-9521.
- L4 ANSWER 8 OF 25 MEDLINE  
 TI Scorpion toxins specific for Na<sup>+</sup>-channels.  
 SO EUROPEAN JOURNAL OF BIOCHEMISTRY, (1999 Sep) 264 (2) 287-300. Ref: 156  
 Journal code: 0107600. ISSN: 0014-2956.
- L4 ANSWER 9 OF 25 MEDLINE  
 TI Structure-function relationships of antimicrobial peptides.  
 SO BIOCHEMISTRY AND CELL BIOLOGY, (1998) 76 (2-3) 235-46. Ref: 108  
 Journal code: 8606068. ISSN: 0829-8211.
- L4 ANSWER 10 OF 25 MEDLINE  
 TI Expressed major histocompatibility complex class II loci in fishes.  
 SO IMMUNOLOGICAL REVIEWS, (1998 Dec) 166 294-300. Ref: 35  
 Journal code: 7702118. ISSN: 0105-2896.
- L4 ANSWER 11 OF 25 MEDLINE  
 TI Immunodominance across HLA polymorphism: implications for cancer immunotherapy.  
 SO JOURNAL OF IMMUNOTHERAPY, (1998 Jan) 21 (1) 1-16. Ref: 129  
 Journal code: 9706083. ISSN: 1524-9557.
- L4 ANSWER 12 OF 25 MEDLINE  
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 SO BIOPOLYMERS, (1997) 43 (4) 281-302. Ref: 74  
 Journal code: 0372525. ISSN: 0006-3525.
- L4 ANSWER 13 OF 25 MEDLINE  
 TI **Peptide binding** to MHC class I molecules: implications for antigenic peptide prediction.  
 SO IMMUNOLOGIC RESEARCH, (1995) 14 (1) 34-57. Ref: 129  
 Journal code: 8611087. ISSN: 0257-277X.
- L4 ANSWER 14 OF 25 MEDLINE  
 TI Dengue fever virus and Japanese encephalitis virus synthetic peptides, with motifs to fit HLA class I haplotypes prevalent in human populations in endemic regions, can be used for application to skin Langerhans cells to prime antiviral CD8<sup>+</sup> cytotoxic T cells (CTLs)--a novel approach to the protection of humans.  
 SO VIRUS GENES, (1994 Sep) 9 (1) 33-45. Ref: 76  
 Journal code: 8803967. ISSN: 0920-8569.
- L4 ANSWER 15 OF 25 MEDLINE  
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 Journal code: 8803967. ISSN: 0920-8569.
- L4 ANSWER 16 OF 25 MEDLINE  
 TI T cell recognition of haptens, a molecular view.  
 SO INTERNATIONAL ARCHIVES OF ALLERGY AND IMMUNOLOGY, (1994 May) 104 (1) 10-6. Ref: 51  
 Journal code: 9211652. ISSN: 1018-2438.
- L4 ANSWER 17 OF 25 MEDLINE  
 TI p53, a potential target for tumor-directed T cells.  
 SO IMMUNOLOGY LETTERS, (1994 May) 40 (2) 171-8. Ref: 51  
 Journal code: 7910006. ISSN: 0165-2478.
- L4 ANSWER 18 OF 25 MEDLINE  
 TI Rules for **peptide binding** to MHC class II molecules.  
 SO APMIS, (1994 Apr) 102 (4) 241-8. Ref: 137  
 Journal code: 8803400. ISSN: 0903-4641.
- L4 ANSWER 19 OF 25 MEDLINE  
 TI Antigen presentation by major histocompatibility complex class I-B molecules.  
 SO ANNUAL REVIEW OF IMMUNOLOGY, (1994) 12 839-80. Ref: 177  
 Journal code: 8309206. ISSN: 0732-0582.
- L4 ANSWER 20 OF 25 MEDLINE  
 TI Structure of peptides associated with class I and class II MHC molecules.  
 SO ANNUAL REVIEW OF IMMUNOLOGY, (1994) 12 181-207. Ref: 137  
 Journal code: 8309206. ISSN: 0732-0582.
- L4 ANSWER 21 OF 25 MEDLINE  
 TI Conserved and variable structures in HLA class I molecules: a review.  
 SO TISSUE ANTIGENS, (1990 Mar) 35 (3) 103-13. Ref: 42  
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- L4 ANSWER 22 OF 25 MEDLINE  
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- L4 ANSWER 23 OF 25 MEDLINE  
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 SO VIRAL IMMUNOLOGY, (1989 Winter) 2 (4) 229-38. Ref: 37  
 Journal code: 8801552. ISSN: 0882-8245.
- L4 ANSWER 24 OF 25 MEDLINE  
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 SO IMMUNOLOGICAL REVIEWS, (1988 Dec) 106 149-80. Ref: 74  
 Journal code: 7702118. ISSN: 0105-2896.
- L4 ANSWER 25 OF 25 MEDLINE  
 TI A hypothetical model of the foreign antigen binding site of class II

histocompatibility molecules.  
SO NATURE, (1988 Apr 28) 332 (6167) 845-50.  
Journal code: 0410462. ISSN: 0028-0836.

=> s ligand bind?  
71973 LIGAND  
53646 LIGANDS  
102939 LIGAND  
(LIGAND OR LIGANDS)  
630948 BIND?  
L5 14593 LIGAND BIND?  
(LIGAND(W)BIND?)

=> d his

(FILE 'HOME' ENTERED AT 07:34:51 ON 23 SEP 2002)

FILE 'MEDLINE' ENTERED AT 07:35:13 ON 23 SEP 2002

L1 3223 S PEPTIDE BIND?  
L2 59 S L1 AND REVIEW  
L3 453285 S AMINO ACID  
L4 25 S L2 AND L3  
L5 14593 S LIGAND BIND?

=> s l5 and review  
301618 REVIEW  
36979 REVIEWS  
331250 REVIEW  
(REVIEW OR REVIEWS)  
L6 289 L5 AND REVIEW

=> s peptide  
237997 PEPTIDE  
144807 PEPTIDES  
L7 313887 PEPTIDE  
(PEPTIDE OR PEPTIDES)

=> s l6 and l7  
L8 30 L6 AND L7

=> d ti so 1-30

L8 ANSWER 1 OF 30 MEDLINE  
TI Insights into the molecular basis of **ligand binding** by  
the cholecystokinin receptor.  
SO Pancreatology, (2001) 1 (4) 336-42. Ref: 41  
Journal code: 100966936. ISSN: 1424-3903.

L8 ANSWER 2 OF 30 MEDLINE  
TI Forty years of calcitonin-where are we now? A tribute to the work  
of Iain  
Macintyre, FRs.  
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Journal code: 8504048. ISSN: 8756-3282.

L8 ANSWER 3 OF 30 MEDLINE  
TI Chemical shifts in amino acids, **peptides**, and proteins: from  
quantum chemistry to drug design.  
SO ANNUAL REVIEW OF PHYSICAL CHEMISTRY, (2002) 53  
349-78. Ref: 82  
Journal code: 15040080R. ISSN: 0066-426X.

L8 ANSWER 4 OF 30 MEDLINE  
TI Intracellular trafficking and metabolic turnover of ligand-bound  
guanylyl  
cyclase/atrial natriuretic **peptide** receptor-A into subcellular  
compartments.  
SO MOLECULAR AND CELLULAR BIOCHEMISTRY, (2002 Jan)  
230 (1-2) 61-72.  
Journal code: 0364456. ISSN: 0300-8177.

L8 ANSWER 5 OF 30 MEDLINE  
TI Biochemistry and physiology of the natriuretic **peptide** receptor

guanylyl cyclases.  
SO MOLECULAR AND CELLULAR BIOCHEMISTRY, (2002 Jan)  
230 (1-2) 31-47.  
Journal code: 0364456. ISSN: 0300-8177.

L8 ANSWER 6 OF 30 MEDLINE  
TI Domain structure and organisation in extracellular matrix proteins.  
SO MATRIX BIOLOGY, (2002 Mar) 21 (2) 115-28. Ref: 82  
Journal code: 9432592. ISSN: 0945-053X.

L8 ANSWER 7 OF 30 MEDLINE  
TI Protein microarray technology.  
SO FRONTIERS IN BIOSCIENCE, (2002 Jan 1) 7 c13-32. Ref: 114  
Journal code: 9702166. ISSN: 1093-4715.

L8 ANSWER 8 OF 30 MEDLINE  
TI Dynamics of internalization and sequestration of guanylyl  
cyclase/atrial  
natriuretic **peptide** receptor-A.  
SO CANADIAN JOURNAL OF PHYSIOLOGY AND  
PHARMACOLOGY, (2001 Aug) 79 (8) 631-9.  
Ref: 79  
Journal code: 0372712. ISSN: 0008-4212.

L8 ANSWER 9 OF 30 MEDLINE  
TI CD26: a multifunctional integral membrane and secreted protein of  
activated lymphocytes.  
SO SCANDINAVIAN JOURNAL OF IMMUNOLOGY, (2001 Sep)  
54 (3) 249-64. Ref: 211  
Journal code: 0323767. ISSN: 0300-9475.

L8 ANSWER 10 OF 30 MEDLINE  
TI Molecular mechanisms of retinoid action.  
SO Cell Mol Biol Lett, (2001) 6 (1) 3-52. Ref: 203  
Journal code: 9607427. ISSN: 1425-8153.

L8 ANSWER 11 OF 30 MEDLINE  
TI Natriuretic **peptide** signalling: molecular and cellular pathways  
to growth regulation.  
SO CELLULAR SIGNALLING, (2001 Apr) 13 (4) 221-31. Ref: 197  
Journal code: 8904683. ISSN: 0898-6568.

L8 ANSWER 12 OF 30 MEDLINE  
TI Molecular mechanisms of ligand recognition by parathyroid  
hormone 1 (PTH1)  
and PTH2 receptors.  
SO CURRENT PHARMACEUTICAL DESIGN, (2001 May) 7 (8)  
689-713. Ref: 132  
Journal code: 9602487. ISSN: 1381-6128.

L8 ANSWER 13 OF 30 MEDLINE  
TI Structure and regulation of opioid receptors.  
SO BIOPOLYMERS, (2000) 55 (4) 334-46. Ref: 120  
Journal code: 0372525. ISSN: 0006-3525.

L8 ANSWER 14 OF 30 MEDLINE  
TI A structural biologist's view of the oestrogen receptor.  
SO JOURNAL OF STEROID BIOCHEMISTRY AND MOLECULAR  
BIOLOGY, (2000 Nov 30) 74  
(5) 261-8. Ref: 28  
Journal code: 9015483. ISSN: 0960-0760.

L8 ANSWER 15 OF 30 MEDLINE  
TI Guanylyl cyclases and signaling by cyclic GMP.  
SO PHARMACOLOGICAL REVIEWS, (2000 Sep) 52 (3) 375-414.  
Ref: 390  
Journal code: 0421737. ISSN: 0031-6997.

L8 ANSWER 16 OF 30 MEDLINE  
TI Characterisation of G-protein-coupled receptors by antibodies.  
SO CURRENT MEDICINAL CHEMISTRY, (2000 Sep) 7 (9) 897-  
910. Ref: 54  
Journal code: 9440157. ISSN: 0929-8673.

- L8 ANSWER 17 OF 30 MEDLINE  
 TI Engineered protein scaffolds for molecular recognition.  
 SO JOURNAL OF MOLECULAR RECOGNITION, (2000 Jul-Aug)  
 13 (4) 167-87. Ref: 115  
 Journal code: 9004580. ISSN: 0952-3499.
- L8 ANSWER 18 OF 30 MEDLINE  
 TI Molecular characterization of the ligand-receptor interaction of  
 neuropeptide Y.  
 SO CURRENT MEDICINAL CHEMISTRY, (1999 Nov) 6 (11) 1055-  
 66. Ref: 82  
 Journal code: 9440157. ISSN: 0929-8673.
- L8 ANSWER 19 OF 30 MEDLINE  
 TI Parathyroid hormone and parathyroid hormone-related protein:  
 model systems  
 for the development of an osteoporosis therapy.  
 SO CURRENT PHARMACEUTICAL DESIGN, (1999 Jan) 5 (1) 21-  
 36. Ref: 177  
 Journal code: 9602487. ISSN: 1381-6128.
- L8 ANSWER 20 OF 30 MEDLINE  
 TI Intracellular signaling and endosomal trafficking of  
 immunoreceptors.  
 Shared effectors underlying MHC class II-restricted antigen  
 presentation.  
 SO IMMUNOLOGY LETTERS, (1997 Jun 1) 57 (1-3) 1-4. Ref: 35  
 Journal code: 7910006. ISSN: 0165-2478.
- L8 ANSWER 21 OF 30 MEDLINE  
 TI Selectively infective phages (SIP).  
 SO BIOLOGICAL CHEMISTRY, (1997 Jun) 378 (6) 445-56. Ref: 58  
 Journal code: 9700112. ISSN: 1431-6730.
- L8 ANSWER 22 OF 30 MEDLINE  
 TI Cation-pi bonding and amino-aromatic interactions in the  
 biomolecular  
 recognition of substituted ammonium ligands.  
 SO BIOCHEMICAL JOURNAL, (1996 Oct 1) 319 ( Pt 1) 1-8. Ref: 60  
 Journal code: 2984726R. ISSN: 0264-6021.
- L8 ANSWER 23 OF 30 MEDLINE  
 TI Mutagenesis study of pharmacological receptors: approach to their  
 structure-function relationships.  
 SO NIPPON YAKURIGAKU ZASSHI. FOLIA  
 PHARMACOLOGICA JAPONICA, (1995 Nov) 106  
 (5) 321-6. Ref: 16  
 Journal code: 0420550. ISSN: 0015-5691.
- L8 ANSWER 24 OF 30 MEDLINE  
 TI Regulation of integrin function and cellular adhesion.  
 SO STEM CELLS, (1995 May) 13 (3) 250-62. Ref: 99  
 Journal code: 9304532. ISSN: 1066-5099.
- L8 ANSWER 25 OF 30 MEDLINE  
 TI Clues for understanding the structure and function of a prototypic  
 human  
 integrin: the platelet glycoprotein IIb/IIIa complex.  
 SO THROMBOSIS AND HAEMOSTASIS, (1994 Jul) 72 (1) 1-15.  
 Ref: 210  
 Journal code: 7608063. ISSN: 0340-6245.
- L8 ANSWER 26 OF 30 MEDLINE  
 TI In vitro selection and evolution of RNA: applications for catalytic  
 RNA,  
 molecular recognition, and drug discovery.  
 SO FASEB JOURNAL, (1993 Jan) 7 (1) 106-12. Ref: 24  
 Journal code: 8804484. ISSN: 0892-6638.
- L8 ANSWER 27 OF 30 MEDLINE  
 TI Hypothalamic regulatory peptides and their receptors:  
 cytochemical studies of their role in regulation at the  
 adenohypophyseal  
 level.
- SO JOURNAL OF ELECTRON MICROSCOPY TECHNIQUE, (1991  
 Sep) 19 (1) 21-41. Ref:  
 53  
 Journal code: 8502171. ISSN: 0741-0581.
- L8 ANSWER 28 OF 30 MEDLINE  
 TI Neuropeptide Y and peptide YY: major modulators of  
 gastrointestinal blood flow and function.  
 SO AMERICAN JOURNAL OF PHYSIOLOGY, (1991 Nov) 261 (5  
 Pt 1) G701-15. Ref: 105  
 Journal code: 0370511. ISSN: 0002-9513.
- L8 ANSWER 29 OF 30 MEDLINE  
 TI Atrial natriuretic peptide in the central nervous system.  
 SO NEUROENDOCRINOLOGY, (1991) 53 Suppl 1 18-24. Ref: 53  
 Journal code: 0035665. ISSN: 0028-3835.
- L8 ANSWER 30 OF 30 MEDLINE  
 TI Hydrogen exchange and the dynamic structure of proteins.  
 SO MOLECULAR AND CELLULAR BIOCHEMISTRY, (1982 Oct  
 29) 48 (3) 135-60. Ref:  
 172  
 Journal code: 0364456. ISSN: 0300-8177.
- => d ibib ab 3
- L8 ANSWER 3 OF 30 MEDLINE  
 ACCESSION NUMBER: 2002234040 MEDLINE  
 DOCUMENT NUMBER: 21968348 PubMed ID: 11972012  
 TITLE: Chemical shifts in amino acids, peptides, and  
 proteins: from quantum chemistry to drug design.  
 AUTHOR: Oldfield Eric  
 CORPORATE SOURCE: Department of Chemistry and Center for  
 Biophysics and  
 Computational Biology, University of Illinois at  
 Urbana-Champaign, 600 South Mathews Avenue, Urbana,  
 Illinois 61801, USA. eo@chad.scs.uiuc.edu  
 CONTRACT NUMBER: GM-50694 (NIGMS)  
 HL-19481 (NHLBI)  
 SOURCE: ANNUAL REVIEW OF PHYSICAL CHEMISTRY,  
 (2002) 53 349-78.  
 Ref: 82  
 Journal code: 15040080R. ISSN: 0066-426X.  
 PUB. COUNTRY: United States  
 DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
 General Review; (REVIEW)  
 (REVIEW, ACADEMIC)  
 LANGUAGE: English  
 FILE SEGMENT: Priority Journals  
 ENTRY MONTH: 200207  
 ENTRY DATE: Entered STN: 20020425  
 Last Updated on STN: 20020726  
 Entered Medline: 20020725
- AB This chapter discusses recent progress in the investigation and use  
 of  
 (13)C, (15)N, and (19)F nuclear magnetic resonance (NMR)  
 chemical shifts  
 and chemical shift tensors in proteins and model systems primarily  
 using  
 quantum chemical (ab initio Hartree-Fock and density functional  
 theory)  
 techniques. Correlations between spectra and structure are made and  
 the  
 techniques applied to other spectroscopic and electrostatic properties  
 as  
 well, including hydrogen bonding, ligand binding to  
 heme proteins, J-couplings, electric field gradients, and  
 atoms-in-molecules theory, together with a brief review of the  
 use of NMR chemical shifts in drug design.
- => d his

(FILE 'HOME' ENTERED AT 07:34:51 ON 23 SEP 2002)

FILE 'MEDLINE' ENTERED AT 07:35:13 ON 23 SEP 2002

L1 3223 S PEPTIDE BIND?  
L2 59 S L1 AND REVIEW  
L3 453285 S AMINO ACID  
L4 25 S L2 AND L3  
L5 14593 S LIGAND BIND?  
L6 289 S L5 AND REVIEW  
L7 313887 S PEPTIDE  
L8 30 S L6 AND L7

=> log hold

COST IN U.S. DOLLARS	ENTRY	SINCE FILE SESSION	TOTAL
FULL ESTIMATED COST		7.13	7.34

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NEWS 6 Apr 22 Records from IP.com available in CAPLUS, HCAPLUS, and ZCAPLUS  
NEWS 7 Apr 22 BIOSIS Gene Names now available in TOXCENTER  
NEWS 8 Apr 22 Federal Research in Progress (FEDRIP) now available  
NEWS 9 Jun 03 New e-mail delivery for search results now available  
NEWS 10 Jun 10 MEDLINE Reload  
NEWS 11 Jun 10 PCTFULL has been reloaded  
NEWS 12 Jul 02 FOREGE no longer contains STANDARDS file segment  
NEWS 13 Jul 22 USAN to be reloaded July 28, 2002; saved answer sets no longer valid  
NEWS 14 Jul 29 Enhanced polymer searching in REGISTRY  
NEWS 15 Jul 30 NETFIRST to be removed from STN  
NEWS 16 Aug 08 CANCERLIT reload  
NEWS 17 Aug 08 PHARMAMarketLetter(PHARMAML) - new on STN  
NEWS 18 Aug 08 NTIS has been reloaded and enhanced  
NEWS 19 Aug 19 Aquatic Toxicity Information Retrieval (AQUIRE) now available on STN  
NEWS 20 Aug 19 IFIPAT, IFICDB, and IFIUDB have been reloaded  
NEWS 21 Aug 19 The MEDLINE file segment of TOXCENTER has been reloaded  
NEWS 22 Aug 26 Sequence searching in REGISTRY enhanced  
NEWS 23 Sep 03 JAPIO has been reloaded and enhanced  
NEWS 24 Sep 16 Experimental properties added to the REGISTRY file  
NEWS 25 Sep 16 Indexing added to some pre-1967 records in CA/CAPLUS  
NEWS 26 Sep 16 CA Section Thesaurus available in CAPLUS and

CA

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CURRENT MACINTOSH VERSION IS V6.0a(ENG) AND V6.0Ja(JP),

AND CURRENT DISCOVER FILE IS DATED 05

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FILE 'HOME' ENTERED AT 09:12:11 ON 23 SEP 2002

=> file medline

COST IN U.S. DOLLARS	ENTRY	SINCE FILE SESSION	TOTAL
FULL ESTIMATED COST		0.21	0.21

FILE 'MEDLINE' ENTERED AT 09:12:18 ON 23 SEP 2002

FILE LAST UPDATED: 21 SEP 2002 (20020921/UP). FILE COVERS 1958 TO DATE.

On June 9, 2002, MEDLINE was reloaded. See HELP RLOAD for details.

MEDLINE thesauri in the /CN, /CT, and /MN fields incorporate the MeSH 2002 vocabulary. Enter HELP THESAURUS for details.

THIS FILE CONTAINS CAS REGISTRY NUMBERS FOR EASY AND ACCURATE SUBSTANCE IDENTIFICATION.

=> s ligand/ti

13852 LIGAND/TI

6415 LIGANDS/TI

L1 20143 LIGAND/TI

((LIGAND OR LIGANDS)/TI)

=> s l1 and review

301618 REVIEW

36979 REVIEWS

331250 REVIEW

(REVIEW OR REVIEWS)

L2 281 L1 AND REVIEW

=> s bind?

L3 630948 BIND?

=> s l2 and l3

L4 127 L2 AND L3

=> s l2(s)l3

PROXIMITY OPERATOR LEVEL NOT CONSISTENT WITH FIELD CODE - 'AND' OPERATOR ASSUMED 'L2(S)L3'

L5 127 L2(S)L3

=> d his

(FILE 'HOME' ENTERED AT 09:12:11 ON 23 SEP 2002)

FILE 'MEDLINE' ENTERED AT 09:12:18 ON 23 SEP 2002

L1 20143 S LIGAND/TI  
L2 281 S L1 AND REVIEW  
L3 630948 S BIND?  
L4 127 S L2 AND L3  
L5 127 S L2(S)L3

=> s peptide

237997 PEPTIDE  
144807 PEPTIDES  
L6 313887 PEPTIDE  
(PEPTIDE OR PEPTIDES)

=> s l5 and l6

L7 19 L5 AND L6

=> d ti so 1-19

L7 ANSWER 1 OF 19 MEDLINE  
TI Non-**peptide** Opioid Receptor **Ligands** - Recent Advances.  
Part II - Antagonists.  
SO CURRENT MEDICINAL CHEMISTRY, (2002 Sep) 9 (17) 1591-603.  
Journal code: 9440157. ISSN: 0929-8673.

L7 ANSWER 2 OF 19 MEDLINE  
TI Insights into the molecular basis of **ligand binding** by the cholecystikinin receptor.  
SO Pancreatology, (2001) 1 (4) 336-42. Ref: 41  
Journal code: 100966936. ISSN: 1424-3903.

L7 ANSWER 3 OF 19 MEDLINE  
TI Intracellular trafficking and metabolic turnover of **ligand**-bound guanylyl cyclase/atrial natriuretic **peptide** receptor-A into subcellular compartments.  
SO MOLECULAR AND CELLULAR BIOCHEMISTRY, (2002 Jan) 230 (1-2) 61-72.  
Journal code: 0364456. ISSN: 0300-8177.

L7 ANSWER 4 OF 19 MEDLINE  
TI **Peptides** as receptor **ligand** drugs and their relationship to G-coupled signal transduction.  
SO EXPERT OPINION ON INVESTIGATIONAL DRUGS, (2001 Jun) 10 (6) 1063-73. Ref: 149  
Journal code: 9434197. ISSN: 1354-3784.

L7 ANSWER 5 OF 19 MEDLINE  
TI **Ligand** interactions by activating and inhibitory Ly-49 receptors.  
SO IMMUNOLOGICAL REVIEWS, (2001 Jun) 181 138-48. Ref: 72  
Journal code: 7702118. ISSN: 0105-2896.

L7 ANSWER 6 OF 19 MEDLINE  
TI Molecular mechanisms of **ligand** recognition by parathyroid hormone 1 (PTH1) and PTH2 receptors.  
SO CURRENT PHARMACEUTICAL DESIGN, (2001 May) 7 (8) 689-713. Ref: 132  
Journal code: 9602487. ISSN: 1381-6128.

L7 ANSWER 7 OF 19 MEDLINE  
TI Applications of a **peptide ligand** for streptavidin: the Strep-tag.  
SO BIOMOLECULAR ENGINEERING, (1999 Dec 31) 16 (1-4) 79-86. Ref: 37  
Journal code: 100928062. ISSN: 1389-0344.

L7 ANSWER 8 OF 19 MEDLINE  
TI Molecular characterization of the **ligand**-receptor interaction of

neuropeptide Y.

SO CURRENT MEDICINAL CHEMISTRY, (1999 Nov) 6 (11) 1055-66. Ref: 82  
Journal code: 9440157. ISSN: 0929-8673.

L7 ANSWER 9 OF 19 MEDLINE  
TI Fluorescent **ligands** for studying neuropeptide receptors by confocal microscopy.  
SO BRAZILIAN JOURNAL OF MEDICAL AND BIOLOGICAL RESEARCH, (1998 Nov) 31 (11) 1479-89. Ref: 40  
Journal code: 8112917. ISSN: 0100-879X.

L7 ANSWER 10 OF 19 MEDLINE  
TI Altered **peptide ligand** design: altering immune responses to class I MHC/**peptide** complexes.  
SO IMMUNOLOGICAL REVIEWS, (1998 Jun) 163 151-60. Ref: 66  
Journal code: 7702118. ISSN: 0105-2896.

L7 ANSWER 11 OF 19 MEDLINE  
TI **Peptides** in cell adhesion: powerful tools for the study of integrin-**ligand** interactions.  
SO BRAZILIAN JOURNAL OF MEDICAL AND BIOLOGICAL RESEARCH, (1996 Sep) 29 (9) 1151-8.  
Journal code: 8112917. ISSN: 0100-879X.

L7 ANSWER 12 OF 19 MEDLINE  
TI Cation-pi bonding and amino-aromatic interactions in the biomolecular recognition of substituted ammonium **ligands**.  
SO BIOCHEMICAL JOURNAL, (1996 Oct 1) 319 ( Pt 1) 1-8. Ref: 60  
Journal code: 2984726R. ISSN: 0264-6021.

L7 ANSWER 13 OF 19 MEDLINE  
TI Altered **peptide ligand**-induced partial T cell activation: molecular mechanisms and role in T cell biology.  
SO ANNUAL REVIEW OF IMMUNOLOGY, (1996) 14 1-27. Ref: 81  
Journal code: 8309206. ISSN: 0732-0582.

L7 ANSWER 14 OF 19 MEDLINE  
TI Integrin-**ligand** interactions: a year in review.  
SO CURRENT OPINION IN CELL BIOLOGY, (1994 Oct) 6 (5) 656-62. Ref: 34  
Journal code: 8913428. ISSN: 0955-0674.

L7 ANSWER 15 OF 19 MEDLINE  
TI Endogenous **ligands** selecting T cells expressing particular V beta elements.  
SO INTERNATIONAL REVIEWS OF IMMUNOLOGY, (1992) 8 (4) 289-309. Ref: 71  
Journal code: 8712260. ISSN: 0883-0185.

L7 ANSWER 16 OF 19 MEDLINE  
TI Effects of small C-ANF receptor **ligands** on plasma levels of atrial natriuretic factor, blood pressure, and renal function in the rat.  
SO CANADIAN JOURNAL OF PHYSIOLOGY AND PHARMACOLOGY, (1991 Oct) 69 (10) 1561-6.  
Journal code: 0372712. ISSN: 0008-4212.

L7 ANSWER 17 OF 19 MEDLINE  
TI On the structural and mechanistic basis of function, classification, and **ligand** design for 5-HT receptors.  
SO NEUROPSYCHOPHARMACOLOGY, (1990 Oct-Dec) 3 (5-6) 397-409. Ref: 51  
Journal code: 8904907. ISSN: 0893-133X.

L7 ANSWER 18 OF 19 MEDLINE  
TI Displacement reactions employing heterologous tracer **ligands** in **peptide** receptor studies: a review.  
SO JOURNAL OF RECEPTOR RESEARCH, (1983) 3 (1-2) 227-38.

Ref: 28

Journal code: 8008358. ISSN: 0197-5110.

L7 ANSWER 19 OF 19 MEDLINE

TI Bioorganic modelling stereoselective reactions with chiral neutral **ligand** complexes as model systems for enzyme catalysis.

SO TOPICS IN CURRENT CHEMISTRY, (1982) 101 111-45. Ref: 93

Journal code: 0432204. ISSN: 0340-1022.

=> d ibib ab 2,4,6,8,10

L7 ANSWER 2 OF 19 MEDLINE

ACCESSION NUMBER: 2002374596 MEDLINE

DOCUMENT NUMBER: 22116333 PubMed ID: 12120212

TITLE: Insights into the molecular basis of **ligand**

**binding** by the cholecystokinin receptor.

AUTHOR: Miller L J; Ding X Q

CORPORATE SOURCE: Center for Basic Research in Digestive Diseases, Mayo

Clinic and Foundation, Rochester, Minn., USA..

miller@mayo.edu

CONTRACT NUMBER: DK32878 (NIDDK)

SOURCE: Pancreatology, (2001) 1 (4) 336-42. Ref: 41

Journal code: 100966936. ISSN: 1424-3903.

PUB. COUNTRY: Switzerland

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

General Review; (REVIEW)

(REVIEW, TUTORIAL)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 200208

ENTRY DATE: Entered STN: 20020718

Last Updated on STN: 20020807

Entered Medline: 20020806

AB The receptor for the **peptide** hormone, cholecystokinin, is a G-protein-coupled receptor in the rhodopsin/beta-adrenergic receptor family. A number of methodological approaches have been utilized to gain

insights into the molecular basis for natural **peptide** ligand **binding** and activation of this physiologically important receptor.

Insights into this have come from sequence analysis, ligand and receptor structure-activity data, receptor mutagenesis, conformational analysis of

ligand and receptor fragments, and photoaffinity labeling. In this work,

we **review** the contributions of each of these complementary approaches and provide a current integrated view of the active complex of

cholecystokinin bound to its receptor.

L7 ANSWER 4 OF 19 MEDLINE

ACCESSION NUMBER: 2002048901 MEDLINE

DOCUMENT NUMBER: 21634420 PubMed ID: 11772235

TITLE: **Peptides** as receptor **ligand** drugs and

their relationship to G-coupled signal transduction.

AUTHOR: Mizejewski G J

CORPORATE SOURCE: Wadsworth Center, New York State Dept. of Health, Empire

State Plaza, Albany, NY 12201, USA..

mizejew@wadsworth.org

SOURCE: EXPERT OPINION ON INVESTIGATIONAL DRUGS, (2001 Jun) 10 (6)

1063-73. Ref: 149

Journal code: 9434197. ISSN: 1354-3784.

PUB. COUNTRY: England: United Kingdom

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

General Review; (REVIEW)

(REVIEW, TUTORIAL)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 200202

ENTRY DATE: Entered STN: 20020125

Last Updated on STN: 20020215

Entered Medline: 20020214

AB **Peptides** act as effector agents that regulate and/or mediate physiological processes, serving as hormones, neurotransmitters and signal

transducing factors. The low molecular weight **peptides** affect receptor-mediated events, which influence cardiovascular, gastrointestinal

and neurocranial systems. While some **peptides** have been marketed as drugs, many have served as leads or templates for the development of

non-**peptide** drugs that mimic **peptide** actions. This **review** presents the advantages and disadvantages of using **peptides** as drugs that **bind** as ligands to cell-surface receptors and considers their applications in such events. The value of

both the **peptides** and their mimics is based on their participation in the biomodulation of physiological processes, which frequently employ scaffolding proteins acting in a cascading sequence of

protein-to-protein interactions. The **peptides** **bind** to G-coupled surface receptors to initiate a signal that is transduced to the

interior of the cell through multiple layers of phosphorylating enzymes

and **binding** proteins. **Peptides** have been further employed to identify the molecular targets of signal transduction, the uncoupling of which might provide a means for various disease therapies.

The exploitation of such **peptide**-mediated signal pathways, which are of primary importance to tumour cells, may provide an attractive strategy for anticancer therapy in the future.

L7 ANSWER 6 OF 19 MEDLINE

ACCESSION NUMBER: 2001334644 MEDLINE

DOCUMENT NUMBER: 21270035 PubMed ID: 11375776

TITLE: Molecular mechanisms of **ligand** recognition by parathyroid hormone 1 (PTH1) and PTH2 receptors.

AUTHOR: Hoare S R; Usdin T B

CORPORATE SOURCE: Laboratory of Genetics, NIMH, Building 36/Rm 3D06, 36

Convent Drive MSC4090, Bethesda, MD 20892-4094,

USA..

srjh@codon.nih.gov

SOURCE: CURRENT PHARMACEUTICAL DESIGN, (2001 May) 7 (8) 689-713.

Ref: 132

Journal code: 9602487. ISSN: 1381-6128.

PUB. COUNTRY: Netherlands

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

General Review; (REVIEW)

(REVIEW, TUTORIAL)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 200107

ENTRY DATE: Entered STN: 20010730

Last Updated on STN: 20010730

Entered Medline: 20010726

AB The mammalian parathyroid hormone (PTH) / PTH receptor family includes

PTH1 and PTH2 receptors and three related ligands (PTH, PTH-related

protein (PTHrP) and d tuberoinfundibular **peptide** of 39 residues (TIP39)). Here we comparatively and systematically **review** the pharmacological properties of PTH receptors and ligands, structure of the

ligands, and molecular mechanisms of receptor-ligand interaction.

The PTH1

receptor is activated by PTH and PTHrP but not by TIP39. The PTH2 receptor

is activated by TIP39 but not by PTHrP. PTH strongly activates the human

PTH2 receptor but is a weak partial agonist for rat and zebrafish



## PTH2

receptors. Receptor-G-protein interaction increases the receptor **binding** selectivity of PTHrP and TIP39. Despite different primary structures, the secondary structures of PTH, PTHrP and TIP39 are quite similar. Each ligand contains an N-terminal and a C-terminal alpha-helix in secondary structure-inducing conditions. Receptor-bound ligand structure is less well-characterized. The orientation of receptor-ligand interaction is highly similar for PTH and PTHrP **binding** to the PTH1 receptor and TIP39 interaction with the PTH2 receptor.

### Ligands

**bind** according to a 'two-site' mechanism, in which the C-terminal portion of the ligand **binds** the extracellular N-terminal domain of the receptor (N-interaction), and the N-terminal ligand portion **binds** to the juxtamembrane receptor domain (J-interaction). The N-interaction provides most of the PTH1-receptor **binding** energy for PTH and PTHrP but provides less energy for PTH2 receptor-TIP39 interaction. The J-interaction stimulates G-protein activation. For the PTH-PTH1 receptor interaction, the efficacy-generating component of the J-interaction is independent of the N-domain of the receptor and C-terminal portion of the ligand. This finding suggests that it might be possible to design low molecular-weight PTH1 receptor agonists, which could be bone anabolic agents and used for the treatment of osteoporosis.

L7 ANSWER 8 OF 19 MEDLINE

ACCESSION NUMBER: 1999451237 MEDLINE

DOCUMENT NUMBER: 99451237 PubMed ID: 10519913

TITLE: Molecular characterization of the **ligand**-receptor interaction of neuropeptide Y.

AUTHOR: Ingenhoven N; Beck-Sickinger A G

CORPORATE SOURCE: Swiss Federal Institute of Technology Zurich, Department of

Pharmacy, Winterthurer Str. 190, Zurich, CH 8057, Zurich.

SOURCE: CURRENT MEDICINAL CHEMISTRY, (1999 Nov) 6 (11) 1055-66.

Ref: 82

Journal code: 9440157. ISSN: 0929-8673.

PUB. COUNTRY: Netherlands

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

General Review; (REVIEW)

(REVIEW, ACADEMIC)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 199912

ENTRY DATE: Entered STN: 20000113

Last Updated on STN: 20000113

Entered Medline: 19991215

AB Neuropeptide Y (NPY) consists of 36 amino acids and is one of the most

abundant **peptides** in the peripheral and central nervous system.

Several subtypes of NPY receptors have been described (Y1- y6)

using segments and analogues of NPY. The Y1-, Y2- and the Y5-receptor, which have been cloned, belong to the G-protein coupled hormone receptor family

and will be specially addressed, because they are the endogenous **binding** sites of neuropeptide Y in human. In contrast, Y4-receptors recognize endogenous PP, Y3 receptors are discussed controversially and the y6-receptor is truncated in human. In this **review**, we summarize the data of neuropeptide Y with respect to **ligand binding**, selectivity, receptor structures and ligand-receptor complexes by using ligand analogues, site directed mutagenesis and photoaffinity labeling.

L7 ANSWER 10 OF 19 MEDLINE

ACCESSION NUMBER: 1998365865 MEDLINE

DOCUMENT NUMBER: 98365865 PubMed ID: 9700508

TITLE: Altered **peptide ligand** design: altering immune responses to class I MHC/**peptide** complexes.

AUTHOR: Collins E J; Frelinger J A

CORPORATE SOURCE: Department of Microbiology and Immunology, University of

North Carolina, Chapel Hill, USA. collins1@med.unc.edu

SOURCE: IMMUNOLOGICAL REVIEWS, (1998 Jun) 163 151-60. Ref: 66

Journal code: 7702118. ISSN: 0105-2896.

PUB. COUNTRY: Denmark

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

General Review; (REVIEW)

(REVIEW, TUTORIAL)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 199811

ENTRY DATE: Entered STN: 19990106

Last Updated on STN: 19990106

Entered Medline: 19981106

AB Class I proteins are responsible for **binding** proteins from endogenously synthesized proteins and displaying them on the cell surface.

Our understanding of this process has reached the point where we can manipulate the biochemical properties of **peptide**/class I **binding** and determine the effects of this alteration on subsequent immune responses. In this article, we will **review** the biochemistry of **peptide**/class I **binding**, and the effects of structure on this interaction between class I proteins and their **peptide** ligands. We will **review** the data which suggest that the major relevant biochemical parameter of class I **peptide binding** is the off-rate. We will show that the design of altered ligands with improved **binding**, thermostability and immunogenicity is possible.

=> s peptide bind? determin?

237997 PEPTIDE

144807 PEPTIDES

313887 PEPTIDE

(PEPTIDE OR PEPTIDES)

630948 BIND?

1164399 DETERMIN?

L8 3 PEPTIDE BIND? DETERMIN?

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=> s peptide(s)bind?(s)determin(?)

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=> s peptide(s)bind?(s)determin?

237997 PEPTIDE

144807 PEPTIDES

313887 PEPTIDE

(PEPTIDE OR PEPTIDES)

630948 BIND?

1164399 DETERMIN?

L9 10152 PEPTIDE(S)BIND?(S)DETERMIN?

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301618 REVIEW

36979 REVIEWS

331250 REVIEW

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L10 90 L9 AND REVIEW

=> s l10 not py<1995

9398539 PY<1995

L11 61 L10 NOT PY<1995

=> d ti so 1-20

L11 ANSWER 1 OF 61 MEDLINE

TI Non-peptide Opioid Receptor Ligands - Recent Advances. Part II - Antagonists.  
SO CURRENT MEDICINAL CHEMISTRY, (2002 Sep) 9 (17) 1591-603.  
Journal code: 9440157. ISSN: 0929-8673.

L11 ANSWER 2 OF 61 MEDLINE  
TI Molecular biology of endotoxin antagonism.  
SO WORLD JOURNAL OF SURGERY, (2002 Jul) 26 (7) 790-8. Ref: 96  
Journal code: 7704052. ISSN: 0364-2313.

L11 ANSWER 3 OF 61 MEDLINE  
TI [Sterility of males determined by functional features of the mouse spermatozoa bearing t-complex].  
Steril'nost' samtsov, obuslovlennaiia funktsional'nymi osobennostiami spermatozoidov myshei, nesushchikh t-kompleks.  
SO ONTOGENEZ, (2002 May-Jun) 33 (3) 165-9. Ref: 31  
Journal code: 0341527. ISSN: 0475-1450.

L11 ANSWER 4 OF 61 MEDLINE  
TI Can we infer peptide recognition specificity mediated by SH3 domains?  
SO FEBS LETTERS, (2002 Feb 20) 513 (1) 38-44.  
Journal code: 0155157. ISSN: 0014-5793.

L11 ANSWER 5 OF 61 MEDLINE  
TI Linking the fields--the interplay of organic synthesis, biophysical chemistry, and cell biology in the chemical biology of protein lipidation.  
SO Chembiochem, (2000 Oct 2) 1 (3) 144-69. Ref: 88  
Journal code: 100937360. ISSN: 1439-4227.

L11 ANSWER 6 OF 61 MEDLINE  
TI Peptides and ATP binding cassette peptide transporters.  
SO RESEARCH IN MICROBIOLOGY, (2001 Apr-May) 152 (3-4) 245-58. Ref: 59  
Journal code: 8907468. ISSN: 0923-2508.

L11 ANSWER 7 OF 61 MEDLINE  
TI [A turning point in the knowledge of the structure-function-activity relations of elastin].  
Un tournant essentiel dans la connaissance des relations structure-fonction-activite de l'elastine.  
SO JOURNAL DE LA SOCIETE DE BIOLOGIE, (2001) 195 (2) 181-93. Ref: 34  
Journal code: 100890617.

L11 ANSWER 8 OF 61 MEDLINE  
TI Cytokeratin 8 functions as a major plasminogen receptor in select epithelial and carcinoma cells.  
SO FRONTIERS IN BIOSCIENCE, (2001 Nov 1) 6 D1403-11. Ref: 58  
Journal code: 9702166. ISSN: 1093-4715.

L11 ANSWER 9 OF 61 MEDLINE  
TI Radiation-mediated control of drug delivery.  
SO AMERICAN JOURNAL OF CLINICAL ONCOLOGY, (2001 Oct) 24 (5) 473-80. Ref: 62  
Journal code: 8207754. ISSN: 0277-3732.

L11 ANSWER 10 OF 61 MEDLINE  
TI Molecular mechanisms of retinoid action.  
SO Cell Mol Biol Lett, (2001) 6 (1) 3-52. Ref: 203  
Journal code: 9607427. ISSN: 1425-8153.

L11 ANSWER 11 OF 61 MEDLINE  
TI Mechanism-based inactivators as probes of cytochrome P450 structure and function.  
SO Curr Drug Metab, (2001 Sep) 2 (3) 215-43. Ref: 152  
Journal code: 100960533. ISSN: 1389-2000.

L11 ANSWER 12 OF 61 MEDLINE

TI Natriuretic peptide signalling: molecular and cellular pathways to growth regulation.  
SO CELLULAR SIGNALLING, (2001 Apr) 13 (4) 221-31. Ref: 197  
Journal code: 8904683. ISSN: 0898-6568.

L11 ANSWER 13 OF 61 MEDLINE  
TI Regulation of helper T cell responses to staphylococcal superantigens.  
SO EUROPEAN CYTOKINE NETWORK, (2001 Apr-Jun) 12 (2) 210-22. Ref: 136  
Journal code: 9100879. ISSN: 1148-5493.

L11 ANSWER 14 OF 61 MEDLINE  
TI The use of post-source decay in matrix-assisted laser desorption/ionisation mass spectrometry to delineate T cell determinants.  
SO JOURNAL OF IMMUNOLOGICAL METHODS, (2001 Mar 1) 249 (1-2) 17-31. Ref: 56  
Journal code: 1305440. ISSN: 0022-1759.

L11 ANSWER 15 OF 61 MEDLINE  
TI MHC class I molecules, structure and function.  
SO Rev Immunogenet, (1999) 1 (1) 32-46. Ref: 135  
Journal code: 100883703. ISSN: 1398-1714.

L11 ANSWER 16 OF 61 MEDLINE  
TI Immunogenetics and clinical phenotype of sympathetic ophthalmia in British and Irish patients.  
SO BRITISH JOURNAL OF OPHTHALMOLOGY, (2001 Mar) 85 (3) 281-6.  
Journal code: 0421041. ISSN: 0007-1161.

L11 ANSWER 17 OF 61 MEDLINE  
TI The hsp110 and Grp1 70 stress proteins: newly recognized relatives of the Hsp70s.  
SO CELL STRESS AND CHAPERONES, (2000 Oct) 5 (4) 276-90. Ref: 80  
Journal code: 9610925. ISSN: 1355-8145.

L11 ANSWER 18 OF 61 MEDLINE  
TI Structure-function and biological role of betacellulin.  
SO INTERNATIONAL JOURNAL OF BIOCHEMISTRY AND CELL BIOLOGY, (2000 Aug) 32 (8) 805-15. Ref: 69  
Journal code: 9508482. ISSN: 1357-2725.

L11 ANSWER 19 OF 61 MEDLINE  
TI Profiling the immune responses in patient sera with peptide and cDNA display libraries.  
SO INTERNATIONAL JOURNAL OF MOLECULAR MEDICINE, (2000 Aug) 6 (2) 123-8. Ref: 39  
Journal code: 9810955. ISSN: 1107-3756.

L11 ANSWER 20 OF 61 MEDLINE  
TI Convergent evolution with combinatorial peptides.  
SO FEBS LETTERS, (2000 Aug 25) 480 (1) 55-62. Ref: 111  
Journal code: 0155157. ISSN: 0014-5793.

=> d ti so 21-40

L11 ANSWER 21 OF 61 MEDLINE  
TI Engineered protein scaffolds for molecular recognition.  
SO JOURNAL OF MOLECULAR RECOGNITION, (2000 Jul-Aug) 13 (4) 167-87. Ref: 115  
Journal code: 9004580. ISSN: 0952-3499.

L11 ANSWER 22 OF 61 MEDLINE  
TI Pituitary adenylate cyclase-activating polypeptide and its receptors:

from

structure to functions.

SO PHARMACOLOGICAL REVIEWS, (2000 Jun) 52 (2) 269-324.  
Ref: 968

Journal code: 0421737. ISSN: 0031-6997.

L11 ANSWER 23 OF 61 MEDLINE

TI [Dysmetabolic syndrome related to HIV-1 protease inhibitors.

Review of the literature and personal data].

Sindrome dismetabolica da inibitori della HIV-1 proteasi. Revisione della

letteratura e dati personali.

SO RECENTI PROGRESSI IN MEDICINA, (2000 Feb) 91 (2) 78-85.  
Ref: 58

Journal code: 0401271. ISSN: 0034-1193.

L11 ANSWER 24 OF 61 MEDLINE

TI The EGF domain: requirements for binding to receptors of the ErbB family.

SO VITAMINS AND HORMONES, (2000) 59 99-131. Ref: 150

Journal code: 0413601. ISSN: 0083-6729.

L11 ANSWER 25 OF 61 MEDLINE

TI HLA genetics for diagnosis of susceptibility to early-onset periodontitis.

SO JOURNAL OF PERIODONTAL RESEARCH, (1999 Oct) 34 (7) 374-8. Ref: 33

Journal code: 0055107. ISSN: 0022-3484.

L11 ANSWER 26 OF 61 MEDLINE

TI Estrogen in the etiopathogenesis of BPH.

SO PROSTATE, (1999 Dec 1) 41 (4) 263-74. Ref: 90

Journal code: 8101368. ISSN: 0270-4137.

L11 ANSWER 27 OF 61 MEDLINE

TI Angiotensin and aldosterone.

SO REGULATORY PEPTIDES, (1999 Apr 30) 80 (3) 91-100. Ref: 48

Journal code: 8100479. ISSN: 0167-0115.

L11 ANSWER 28 OF 61 MEDLINE

TI Antigen presenting cells integrate opposing signals from CD4+ and CD8+

regulatory T lymphocytes to arbitrate the outcomes of immune responses.

SO HUMAN IMMUNOLOGY, (1999 Jul) 60 (7) 533-61. Ref: 95

Journal code: 8010936. ISSN: 0198-8859.

L11 ANSWER 29 OF 61 MEDLINE

TI Structure, activity, and immune (T and B cell) recognition of botulinum

neurotoxins.

SO CRITICAL REVIEWS IN IMMUNOLOGY, (1999) 19 (3) 219-60. Ref: 27

Journal code: 8914819. ISSN: 1040-8401.

L11 ANSWER 30 OF 61 MEDLINE

TI Membrane protein folding and stability: physical principles.

SO ANNUAL REVIEW OF BIOPHYSICS AND BIOMOLECULAR STRUCTURE, (1999) 28 319-65.

Ref: 188

Journal code: 9211097. ISSN: 1056-8700.

L11 ANSWER 31 OF 61 MEDLINE

TI Immunodominance in major histocompatibility complex class I-restricted T

lymphocyte responses.

SO ANNUAL REVIEW OF IMMUNOLOGY, (1999) 17 51-88. Ref: 116

Journal code: 8309206. ISSN: 0732-0582.

L11 ANSWER 32 OF 61 MEDLINE

TI Eptifibatide: a review of its use in patients with acute coronary syndromes and/or undergoing percutaneous coronary

intervention.

SO DRUGS, (1999 Mar) 57 (3) 439-62. Ref: 74

Journal code: 7600076. ISSN: 0012-6667.

L11 ANSWER 33 OF 61 MEDLINE

TI Neurophysiology of magnocellular neuroendocrine cells: recent advances.

SO PROGRESS IN BRAIN RESEARCH, (1998) 119 77-99. Ref: 130

Journal code: 0376441. ISSN: 0079-6123.

L11 ANSWER 34 OF 61 MEDLINE

TI Peptide-based molecular analyses of HLA class II-associated susceptibility

to autoimmune diseases.

SO INTERNATIONAL REVIEWS OF IMMUNOLOGY, (1998) 17 (5-6) 229-62. Ref: 82

Journal code: 8712260. ISSN: 0883-0185.

L11 ANSWER 35 OF 61 MEDLINE

TI Galanin-galanin receptor systems in the hypothalamic paraventricular and

supraoptic nuclei. Some recent findings and future challenges.

SO ANNALS OF THE NEW YORK ACADEMY OF SCIENCES, (1998 Dec 21) 863 241-51.

Ref: 52

Journal code: 7506858. ISSN: 0077-8923.

L11 ANSWER 36 OF 61 MEDLINE

TI NMR for the design of functional mimetics of protein-protein interactions:

one key is in the building of bridges.

SO BIOCHEMISTRY AND CELL BIOLOGY, (1998) 76 (2-3) 177-88. Ref: 67

Journal code: 8606068. ISSN: 0829-8211.

L11 ANSWER 37 OF 61 MEDLINE

TI Innervation and control of the adenohypophysis by hypothalamic peptidergic

neurons in teleost fishes: EM immunohistochemical evidence.

SO MICROSCOPY RESEARCH AND TECHNIQUE, (1999 Jan 1) 44 (1) 19-35.

Journal code: 9203012. ISSN: 1059-910X.

L11 ANSWER 38 OF 61 MEDLINE

TI Angiotensin receptors in the nervous system.

SO BRAIN RESEARCH BULLETIN, (1998 Sep 1) 47 (1) 17-28. Ref: 152

Journal code: 7605818. ISSN: 0361-9230.

L11 ANSWER 39 OF 61 MEDLINE

TI Glimpses at the recognition of peptide/MHC complexes by T-cell antigen

receptors.

SO IMMUNOLOGICAL REVIEWS, (1998 Jun) 163 187-96. Ref: 34

Journal code: 7702118. ISSN: 0105-2896.

L11 ANSWER 40 OF 61 MEDLINE

TI Altered peptide ligand design: altering immune responses to class I MHC/peptide complexes.

SO IMMUNOLOGICAL REVIEWS, (1998 Jun) 163 151-60. Ref: 66

Journal code: 7702118. ISSN: 0105-2896.

=> d ibib ab 36, 24

L11 ANSWER 36 OF 61 MEDLINE

ACCESSION NUMBER: 1999120562 MEDLINE

DOCUMENT NUMBER: 99120562 PubMed ID: 9923687

TITLE: NMR for the design of functional mimetics of protein-protein interactions: one key is in the building of bridges.

AUTHOR: Song J; Ni F

CORPORATE SOURCE: Montreal Joint Center for Structural Biology, Biotechnology

Research Institute, National Research Council of Canada,  
QC.

SOURCE: BIOCHEMISTRY AND CELL BIOLOGY, (1998)  
76 (2-3) 177-88.

Ref: 67

Journal code: 8606068. ISSN: 0829-8211.

PUB. COUNTRY: Canada

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

General Review; (REVIEW)

(REVIEW, TUTORIAL)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 199904

ENTRY DATE: Entered STN: 19990504

Last Updated on STN: 19990504

Entered Medline: 19990422

AB Using the design of bivalent and bridge-binding inhibitors of thrombin as an example, we review an NMR-based experimental approach for the design of functional mimetics of protein-protein interactions. The strategy includes: (i) identification of binding residues in peptide ligands by differential resonance perturbation, (ii) determination of protein-bound structures of peptide ligands by use of transferred NOEs, (iii) minimization of larger protein and peptide ligands on the basis of NMR structural information, and (iv) linkage of two weakly binding mimetics to produce an inhibitor with enhanced affinity and specificity.

This approach can be especially effective for the design of potent and selective functional mimetics of protein-protein interactions because it

is less likely that the surfaces of two related proteins or enzymes share

two identical binding sites or regions.

L11 ANSWER 24 OF 61 MEDLINE

ACCESSION NUMBER: 2000178586 MEDLINE

DOCUMENT NUMBER: 20178586 PubMed ID: 10714238

TITLE: The EGF domain: requirements for binding to receptors of

the ErbB family.

AUTHOR: Van Zoelen E J; Stortelers C; Lenferink A E; Van de Poll M

L

CORPORATE SOURCE: Department of Cell Biology, University of Nijmegen, The Netherlands.

SOURCE: VITAMINS AND HORMONES, (2000) 59 99-131.  
Ref: 150

Journal code: 0413601. ISSN: 0083-6729.

PUB. COUNTRY: United States

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

General Review; (REVIEW)

(REVIEW, ACADEMIC)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 200003

ENTRY DATE: Entered STN: 20000407

Last Updated on STN: 20000407

Entered Medline: 20000328

AB Epidermal growth factor (EGF) has been the prototype growth-stimulating

peptide for many years. It has a characteristic structure with three disulfide bridges, which is essential for its activity. However, many other proteins, including both growth factors and proteins with unrelated functions, have similar EGF-like domains. This indicates that

besides a characteristic conformation provided by the EGF-like domain,

specific amino acids are required to provide specificity in protein functioning. Currently, more than 10 different growth factors with an EGF-like domain have been characterized which all exert their action by

binding to the four members of the erbB family of receptors. In this review, studies are described on the structure-function

relationship of these EGF-like growth factor molecules in an attempt to analyze the individual amino acids that determine their binding specificity to the individual members of the erbB family.

=> d his

(FILE 'HOME' ENTERED AT 09:12:11 ON 23 SEP 2002)

FILE 'MEDLINE' ENTERED AT 09:12:18 ON 23 SEP 2002

L1 20143 S LIGAND/TI  
L2 281 S L1 AND REVIEW  
L3 630948 S BIND?  
L4 127 S L2 AND L3  
L5 127 S L2(S)L3  
L6 313887 S PEPTIDE  
L7 19 S L5 AND L6  
L8 3 S PEPTIDE BIND? DETERMIN?  
L9 10152 S PEPTIDE(S)BIND?(S)DETERMIN?  
L10 90 S L9 AND REVIEW  
L11 61 S L10 NOT PY<1995

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NEWS 4 Apr 09 ZDB will be removed from STN  
NEWS 5 Apr 19 US Patent Applications available in IFICDB, IFIPAT, and IFIUDB  
NEWS 6 Apr 22 Records from IP.com available in CAPLUS, HCAPLUS, and ZCAPLUS  
NEWS 7 Apr 22 BIOSIS Gene Names now available in TOXCENTER  
NEWS 8 Apr 22 Federal Research in Progress (FEDRIP) now available  
NEWS 9 Jun 03 New e-mail delivery for search results now available  
NEWS 10 Jun 10 MEDLINE Reload  
NEWS 11 Jun 10 PCTFULL has been reloaded  
NEWS 12 Jul 02 FOREGE no longer contains STANDARDS file segment  
NEWS 13 Jul 22 USAN to be reloaded July 28, 2002; saved answer sets no longer valid  
NEWS 14 Jul 29 Enhanced polymer searching in REGISTRY  
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NEWS 16 Aug 08 CANCERLIT reload  
NEWS 17 Aug 08 PHARMAMarketLetter(PHARMAML) - new on STN  
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NEWS 24 Sep 16 Experimental properties added to the REGISTRY file

NEWS 25 Sep 16 Indexing added to some pre-1967 records in CA/CAPLUS

NEWS 26 Sep 16 CA Section Thesaurus available in CAPLUS and CA

NEWS EXPRESS February 1 CURRENT WINDOWS VERSION IS V6.0d,

CURRENT MACINTOSH VERSION IS V6.0a(ENG) AND V6.0Ja(JP),

AND CURRENT DISCOVER FILE IS DATED 05

FEBRUARY 2002

NEWS HOURS STN Operating Hours Plus Help Desk Availability

NEWS INTER General Internet Information

NEWS LOGIN Welcome Banner and News Items

NEWS PHONE Direct Dial and Telecommunication Network Access to STN

NEWS WWW CAS World Wide Web Site (general information)

Enter NEWS followed by the item number or name to see news on that specific topic.

All use of STN is subject to the provisions of the STN Customer agreement. Please note that this agreement limits use to scientific research. Use for software development or design or implementation of commercial gateways or other similar uses is prohibited and may result in loss of user privileges and other penalties.

\*\*\*\*\* STN Columbus \*\*\*\*\*

FILE 'HOME' ENTERED AT 12:53:05 ON 23 SEP 2002

<-----User Break----->

---Logging off of STN---

	ENTRY	SESSION
FULL ESTIMATED COST	0.21	0.21

FILE 'MEDLINE' ENTERED AT 12:53:19 ON 23 SEP 2002

FILE LAST UPDATED: 21 SEP 2002 (20020921/UP). FILE COVERS 1958 TO DATE.

On June 9, 2002, MEDLINE was reloaded. See HELP RLOAD for details.

MEDLINE thesauri in the /CN, /CT, and /MN fields incorporate the MeSH 2002 vocabulary. Enter HELP THESAURUS for details.

THIS FILE CONTAINS CAS REGISTRY NUMBERS FOR EASY AND ACCURATE SUBSTANCE IDENTIFICATION.

=>

Executing the logoff script...

=> LOG Y

---Logging off of STN---

=>

Connection closed by remote host

Executing the logoff script...

Connecting via Winsock to STN

Welcome to STN International! Enter x:x

LOGINID:SSSPTA1636DXS

PASSWORD:

TERMINAL (ENTER 1, 2, 3, OR ?):2

\*\*\*\*\* Welcome to STN International \*\*\*\*\*

NEWS 1 Web Page URLs for STN Seminar Schedule - N. America

NEWS 2 Apr 08 "Ask CAS" for self-help around the clock

NEWS 3 Apr 09 BEILSTEIN: Reload and Implementation of a New Subject Area

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=> log y			
COST IN U.S. DOLLARS	ENTRY	SINCE FILE	TOTAL